

EXHIBIT A

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

<p style="text-align: right;">Page 1</p> <p>UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY</p> <p>-----</p> <p>CELGENE CORPORATION, Plaintiff,</p> <p>v.</p> <p>HETERO LABS LIMITED, HETERO LABS LIMITED UNIT-V, HETERO DRUGS LIMITED, HETERO USA, INC., AUROBINDO PHARMA LIMITED, AUROBINDO PHARMA USA, INC., AUROLIFE PHARMA LLC, EUGIA PHARMA SPECIALTIES LIMITED, APOTEX INC., APOTEX CORP., MYLAN PHARMACEUTICALS, INC., MYLAN INC., MYLAN, N.V., BRECKENRIDGE PHARMACEUTICAL, INC., and TEVA PHARMACEUTICALS USA, INC., Defendants.</p> <p>Case No: 2:17-cv-03387 (ES)(MAH) CONSOLIDATED</p> <p>-----</p> <p>VIDEO DEPOSITION OF Kinam Park, Ph.D. June 7, 2019 New York, New York Lead: Frank Calvosa, Esquire Firm: Quinn Emanuel Urquhart & Sullivan</p> <p>FINAL COPY JANE ROSE REPORTING 1.800.825.3341</p>	<p style="text-align: right;">Page 3</p> <p>A P P E A R A N C E S (continued):</p> <p>ATTORNEYS FOR PLAINTIFF CELGENE CORPORATION JONES DAY 77 West Wacker Chicago, Illinois 60601 312.782.3939</p> <p>BY: MATTHEW J. HERTKO, ESQUIRE 312.269.1581 office 847.204.9402 mobile mhertko@jonesday.com</p>
<p style="text-align: right;">Page 2</p> <p>A P P E A R A N C E S:</p> <p>ATTORNEYS FOR PLAINTIFF CELGENE CORPORATION QUINN EMANUEL URQUHART & SULLIVAN 51 Madison Avenue 22nd Floor New York, New York 10010 212.849.7000</p> <p>BY: FRANK C. CALVOSA, ESQUIRE 212.849.7569 frankcalvosa@quinnemanuel.com BRIAN J. FORSATZ, Ph.D., ESQUIRE 212.849.7516 brianforsatz@quinnemanuel.com GEOFF KIRSNER, ESQUIRE 212.849.7597 geoffkirsner@quinnemanuel.com</p>	<p style="text-align: right;">Page 4</p> <p>A P P E A R A N C E S (continued):</p> <p>ATTORNEYS FOR DEFENDANT TEVA PHARMACEUTICALS USA, INC. AND THE WITNESS KIRKLAND & ELLIS LLP 601 Lexington Avenue New York, New York 10022 212.446.4800</p> <p>BY: CHRISTOPHER T. JAGOE, ESQUIRE 212.446.4945 christopher.jagoe@kirkland.com MARK C. McLENNAN, ESQUIRE 212.909.3451 mark.mclennan@kirkland.com ASHLEY CADE, ESQUIRE 212.390.4218 office 917.913.3781 ashley.cade@kirkland.com</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

<p style="text-align: right;">Page 5</p> <p>A P P E A R A N C E S (continued):</p> <p>ATTORNEYS FOR DEFENDANTS MYLAN PHARMACEUTICALS AND THE WITNESS WILSON SONSINI GOODRICH & ROSATI One Market Plaza Spear Tower Suite 3300 San Francisco, California 94105 415.947.2000 BY: KRISTINA M. HANSON, ESQUIRE 415.947.2048 thanson@wsgr.com</p>	<p style="text-align: right;">Page 7</p> <p>APPEARING BY TELEPHONE (continued):</p> <p>ATTORNEYS FOR DEFENDANTS APOTEX INC. and APOTEX CORP. TAFT STETTINIUS & HOLLISTER LLP 111 East Wacker Suite 2800 Chicago, Illinois 60601 312.527.4000 BY: BRIAN P. MURRAY, ESQUIRE 312.840.4307 bmurray@taftlaw.com</p> <p>ALSO PRESENT Dr. Steven Little, University of Pittsburgh Yang Li, Kirkland & Ellis LLP</p> <p>JANE ROSE REPORTING 74 Fifth Avenue New York, New York 10011 1.800.825.3341 Brandon Rainoff, Court Reporter Ingrid Rodriguez, Videographer</p>
<p style="text-align: right;">Page 6</p> <p>APPEARING BY TELEPHONE:</p> <p>ATTORNEYS FOR DEFENDANTS AUROBINDO PHARMA LIMITED, AUROBINDO PHARMA USA, INC., and AUROLIFE PHARMA LLC FISHERBROYLES, LLP 445 Park Avenue 9th Floor New York, New York 10022 866.211.5914 BY: GURPREET SINGH ("RAY") WALIA, ESQUIRE 929.429.5721 office gurpreet.walia@fisherbroyles.com</p> <p>ATTORNEYS FOR DEFENDANT BRECKENRIDGE PHARMACEUTICAL, INC. HAYNES & BOONE, LLP 800 17th Street, N.W. Suite 500 Washington, D.C. 20006 202.654.4500 BY: JOHN W. BATEMAN, ESQUIRE 202.654.4584 john.bateman@haynesboone.com</p>	<p style="text-align: right;">Page 8</p> <p>TABLE OF CONTENTS</p> <p>Witness: Kinam Park, Ph.D.</p> <p>Examination: By Mr. Calvosa.....Page 10</p> <p>Reporter Certificate.....Page 132</p> <p>Notice to Read and Sign.....Page 134</p> <p>Index of Exhibits.....Page 136</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 9	Page 11
<p>1 * * *</p> <p>2 P R O C E E D I N G</p> <p>3 Friday, June 7, 2019</p> <p>4 New York, New York</p> <p>5 9:35 a.m.</p> <p>6 * * *</p> <p>7 THE VIDEOGRAPHER: Here begins media</p> <p>8 No. 1, Vol. I, in the deposition of Dr. Kinam</p> <p>9 Park, in the matter of Celgene Corporation</p> <p>10 versus Par Pharmaceutical, Inc., et al.</p> <p>11 Today's date is June 7, 2019, and the</p> <p>12 time is 9:35 a.m.</p> <p>13 This deposition is being taken at</p> <p>14 Kirkland & Ellis LLP, New York, New York.</p> <p>15 I am Ingrid Rodriguez, the</p> <p>16 videographer, and the court reporter is Brad</p> <p>17 Rainoff, from Jane Rose Reporting, New York, New</p> <p>18 York.</p> <p>19 Will counsel please state your</p> <p>20 appearances for the record?</p> <p>21 MR. CALVOSA: Frank Calvosa from Quinn</p> <p>22 Emanuel Urquhart & Sullivan, LLP on behalf of</p> <p>23 plaintiff Celgene.</p> <p>24 With me is Brian Forsatz and Geoff</p> <p>25 Kirsner, also of Quinn Emanuel.</p>	<p>1 Can you say your business address?</p> <p>2 A. Purdue University, School of</p> <p>3 Biomedical Engineering, West Lafayette, Indiana</p> <p>4 40907.</p> <p>5 MR. CALVOSA: I'm going to hand you</p> <p>6 what I have marked as Park 1 and Park 2.</p> <p>7 * * *</p> <p>8 (Exhibit Park 1, Multipage document</p> <p>9 entitled: Declaration of Dr. Kinam Park, Ph.D.,</p> <p>10 dated November 15, 2018 (no Bates Nos.), marked</p> <p>11 for identification)</p> <p>12 * * *</p> <p>13 (Exhibit Park 2, Multipage document</p> <p>14 entitled: Supplemental Declaration of Dr. Kinam</p> <p>15 Park, Ph.D., dated May 29, 2019 (no Bates Nos.),</p> <p>16 marked for identification)</p> <p>17 * * *</p> <p>18 BY MR. CALVOSA:</p> <p>19 Q. Just take a look at Park 1.</p> <p>20 Do you understand Park 1 to be your</p> <p>21 declaration that was submitted in this case</p> <p>22 concerning certain terms of U.S. Patent Nos.</p> <p>23 8,198,262, which I'll refer to as "the '262</p> <p>24 patent," 8,673,939, which I'll refer to as "the</p> <p>25 '939 patent," 8,735,428, which I'll refer to as</p>
Page 10	Page 12
<p>1 And on behalf of Celgene also, Matthew</p> <p>2 J. Hertko from Jones Day on behalf of Celgene.</p> <p>3 And also present is Steve Little.</p> <p>4 MR. JAGOE: Where is Steve Little</p> <p>5 from? Who is Steve Little?</p> <p>6 MR. CALVOSA: He's our expert in the</p> <p>7 case.</p> <p>8 MR. JAGOE: Oh, okay.</p> <p>9 I'm Christopher Jagoe from Kirkland &</p> <p>10 Ellis representing Teva and the witness.</p> <p>11 And with me from Kirkland are</p> <p>12 colleagues Mark McLennan, Ashley Cade, and Yang</p> <p>13 Li, who is not an attorney yet.</p> <p>14 MS. HANSON: Kristina Hanson from</p> <p>15 Wilson Sonsini Goodrich & Rosati on behalf of</p> <p>16 the Mylan defendants and the witness.</p> <p>17 KINAM PARK, Ph.D.,</p> <p>18 having been duly sworn, was examined and</p> <p>19 testified as follows:</p> <p>20 EXAMINATION</p> <p>21 BY MR. CALVOSA:</p> <p>22 Q. Good morning, Dr. Park.</p> <p>23 A. Good morning.</p> <p>24 Q. You already said your name for the</p> <p>25 record.</p>	<p>1 "the '428 patent," and 8,828,427, which I'll</p> <p>2 refer to as "the '427 patent"?</p> <p>3 A. Yes.</p> <p>4 Q. If you turn to the last page -- page</p> <p>5 34 -- is that your signature there?</p> <p>6 A. Yes.</p> <p>7 Q. You signed this declaration on</p> <p>8 November 15, 2018?</p> <p>9 A. Yes.</p> <p>10 Q. Did you review this declaration in</p> <p>11 preparation for your deposition today?</p> <p>12 A. Yes, I did.</p> <p>13 Q. Did you come across any mistakes or</p> <p>14 inaccuracies that you would like to correct at</p> <p>15 this time?</p> <p>16 A. Not that I found, nothing.</p> <p>17 Q. If you take a look at Park 2 -- which</p> <p>18 is titled: Supplemental Declaration of Dr.</p> <p>19 Kinam Park, Ph.D. -- is this the declaration you</p> <p>20 submitted concerning the claim term "lubricant"</p> <p>21 from United States Patent No. 9,993,467, which</p> <p>22 I'll refer to as "the 467 patent"?</p> <p>23 A. Yes.</p> <p>24 Q. If you turn to the last page again --</p> <p>25 page 14 -- is that your signature there?</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 13	Page 15
<p>1 A. Yes.</p> <p>2 Q. You signed this declaration on May 29,</p> <p>3 2019, right?</p> <p>4 A. Right.</p> <p>5 Q. Are you represented by counsel here</p> <p>6 today?</p> <p>7 MR. JAGOE: Yes, he is.</p> <p>8 BY MR. CALVOSA:</p> <p>9 Q. And that would be Mr. Jagoe, to your</p> <p>10 right?</p> <p>11 MR. JAGOE: At least.</p> <p>12 A. Yes.</p> <p>13 MR. CALVOSA: When you say "at least,"</p> <p>14 what do you mean?</p> <p>15 MR. JAGOE: Well, I heard somebody</p> <p>16 else --</p> <p>17 MS. HANSON: The Mylan defendants have</p> <p>18 also retained Dr. Park.</p> <p>19 MR. CALVOSA: Okay.</p> <p>20 Anybody else?</p> <p>21 BY MR. CALVOSA:</p> <p>22 Q. Dr. Park, have you been retained by</p> <p>23 any defendants in this matter other than Mylan</p> <p>24 and Teva?</p> <p>25 A. In this case?</p>	<p>1 phone?</p> <p>2 A. I actually don't remember because I</p> <p>3 don't recall the names.</p> <p>4 Q. Have you been deposed before?</p> <p>5 A. Yes.</p> <p>6 Q. About how many times?</p> <p>7 A. I don't recall, but about anywhere</p> <p>8 between 10 and 20 times.</p> <p>9 Q. So I'm sure you might know, but just</p> <p>10 some simple grounds rules for the day.</p> <p>11 I'm going to be asking a series of</p> <p>12 questions. Your counsel may object from time to</p> <p>13 time.</p> <p>14 I ask that you wait for me to finish</p> <p>15 my question, wait for him to finish his</p> <p>16 objection. That way nobody is talking over each</p> <p>17 other.</p> <p>18 But unless Mr. Jagoe instructs you not</p> <p>19 to answer, you do have to answer my question.</p> <p>20 You could take a break at any time you</p> <p>21 like, just let me know.</p> <p>22 I just ask that if a question is</p> <p>23 pending, you answer that question and then we</p> <p>24 are free to break.</p> <p>25 In those 10 to 20 times you have been</p>
Page 14	Page 16
<p>1 Q. In this case.</p> <p>2 (Pause)</p> <p>3 A. I think other firms that retained me</p> <p>4 also include Aurobindo and Hetero.</p> <p>5 Q. So you have been retained by Teva,</p> <p>6 Mylan, Aurobindo, and Hetero.</p> <p>7 Is that right?</p> <p>8 A. Yes.</p> <p>9 And I also recall Apotex, but I'm not</p> <p>10 sure that I had retained a letter or not.</p> <p>11 Q. What about Breckenridge?</p> <p>12 A. That is also a part of the talk, but I</p> <p>13 don't recall whether I have retained a letter</p> <p>14 signed or not.</p> <p>15 Q. Were any attorneys from Breckenridge</p> <p>16 present in any preparation you did for your</p> <p>17 deposition today?</p> <p>18 A. I don't recall, but -- not here</p> <p>19 yesterday.</p> <p>20 Q. Were they on the phone?</p> <p>21 A. Some lawyers were on the phone.</p> <p>22 Q. Were any lawyers from Breckenridge on</p> <p>23 the phone?</p> <p>24 A. That's what I don't remember.</p> <p>25 Q. Were any lawyers from Apotex on the</p>	<p>1 deposed, were you serving as an expert in the</p> <p>2 cases?</p> <p>3 A. Yes.</p> <p>4 Q. Were they all patent cases?</p> <p>5 A. I think so.</p> <p>6 Q. Have you heard the phrase "ANDA case"</p> <p>7 before?</p> <p>8 A. Yes.</p> <p>9 Q. What do you understand an ANDA case to</p> <p>10 be?</p> <p>11 A. Well, "ANDA" means Abbreviated New</p> <p>12 Drug Application, so ANDA application by generic</p> <p>13 companies.</p> <p>14 Cases usually involve the patents</p> <p>15 associated with a particular drug.</p> <p>16 Q. And you understand it to be ANDA cases</p> <p>17 oftentimes between the -- the litigation between</p> <p>18 the patent holder and the generic drug</p> <p>19 companies?</p> <p>20 A. That is my understanding.</p> <p>21 Q. Those 10 to 20 times you appeared as</p> <p>22 an expert for depositions -- were those all in</p> <p>23 ANDA cases?</p> <p>24 A. Not all of them.</p> <p>25 Q. About how many of them were ANDA</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 17	Page 19
<p>1 cases?</p> <p>2 A. Majority of them.</p> <p>3 Q. In the ones that were ANDA cases, did</p> <p>4 you testify for the patent holder or the generic</p> <p>5 company?</p> <p>6 A. Both.</p> <p>7 MR. JAGOE: Compound.</p> <p>8 A. Both.</p> <p>9 (Pause)</p> <p>10 Q. Could you turn to Park 1, your</p> <p>11 background and qualifications section that</p> <p>12 begins on page 2, paragraph 6?</p> <p>13 A. Yeah.</p> <p>14 Q. You say here that you are currently</p> <p>15 the Showalter Distinguished Professor of</p> <p>16 Biomedical Engineering, as well as a full</p> <p>17 professor in the department of pharmaceuticals at</p> <p>18 Purdue University.</p> <p>19 Do you see that?</p> <p>20 A. Yes.</p> <p>21 Q. What is the Showalter Distinguished</p> <p>22 Professor?</p> <p>23 A. Each university has a rank called</p> <p>24 distinguished professor, which is official rank</p> <p>25 above full professor. Many times such a</p>	<p>1 MR. JAGOE: At Purdue.</p> <p>2 BY MR. CALVOSA:</p> <p>3 Q. Yes.</p> <p>4 A. At Purdue? Or in general?</p> <p>5 Q. Is there a difference?</p> <p>6 A. Sometimes some department called</p> <p>7 bioengineering, biomedical engineering -- so</p> <p>8 depending on how you call it.</p> <p>9 At Purdue University, biomedical</p> <p>10 engineering means applying engineering</p> <p>11 discipline to the issues related to biomedical</p> <p>12 and pharmaceutical field, vice versa.</p> <p>13 Q. What does it mean to apply engineering</p> <p>14 to, for example, the pharmaceutical field?</p> <p>15 A. Well, the pharmaceutical field deals</p> <p>16 with a variety of different disciplines,</p> <p>17 starting from making formulation, applying it to</p> <p>18 patients, measuring throughout concentration in</p> <p>19 blood, which we call pharmacokinetics, and</p> <p>20 applying engineering principles to design and</p> <p>21 develop new drug delivery systems.</p> <p>22 (Pause)</p> <p>23 Q. When you say here "the Department of</p> <p>24 Pharmaceuticals," what is the department of</p> <p>25 pharmaceuticals at Purdue University?</p>
Page 18	Page 20
<p>1 distinguished professor position comes with some</p> <p>2 endowment.</p> <p>3 And in this case, Showalter foundation</p> <p>4 provide the money to -- as an endowment fund.</p> <p>5 So it's called Showalter Distinguished</p> <p>6 Professor.</p> <p>7 Q. When you use "Biomedical Engineering"</p> <p>8 here in paragraph 6 of your declaration, what do</p> <p>9 you mean by that term?</p> <p>10 A. Biomedical Engineering is the name of</p> <p>11 the department; also sometimes called the School</p> <p>12 of Biomedical Engineering as -- at Purdue</p> <p>13 University.</p> <p>14 The full name is the Showalter</p> <p>15 Distinguished Professor of Biomedical</p> <p>16 Engineering because it was given by the Weldon</p> <p>17 School of Biomedical Engineering.</p> <p>18 Q. So for biomedical engineering -- I</p> <p>19 guess the department -- what is that?</p> <p>20 A. You are asking me what is biomedical</p> <p>21 engineering?</p> <p>22 Q. Yes. I just don't know, so curious</p> <p>23 about that.</p> <p>24 A. You are asking me: What is biomedical</p> <p>25 engineering?</p>	<p>1 A. "Pharmaceuticals" indicates formulation</p> <p>2 development in pharmacokinetics,</p> <p>3 pharmacodynamics, formulation including variety</p> <p>4 of different drugs -- water soluble drugs, water</p> <p>5 insoluble drugs -- large molecular weight drugs,</p> <p>6 including peptide and proteins, stability</p> <p>7 study -- a number of different aspect of drug</p> <p>8 development.</p> <p>9 Q. You have used the word "formulation" a</p> <p>10 couple times.</p> <p>11 And one time, you said "formulation</p> <p>12 development"; another time you said "making</p> <p>13 formulation."</p> <p>14 What do you mean by "formulation"?</p> <p>15 A. Simply for formulation refers to drug</p> <p>16 delivery system which can be tablet, capsules,</p> <p>17 injectables, solutions, IV solution, eyedrops --</p> <p>18 all different types of drug delivery system.</p> <p>19 Q. Was that a comprehensive list that you</p> <p>20 gave of different drug delivery systems for</p> <p>21 formulations?</p> <p>22 A. No.</p> <p>23 Q. Are there many more?</p> <p>24 A. Yes.</p> <p>25 (Pause)</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 21	Page 23
<p>1 Q. If you turn the page in part I to page 2 3 of paragraph 8. 3 (Pause) 4 Q. -- that first sentence there, you say 5 that your expertise relates generally to the 6 development of human pharmaceuticals for the 7 treatment of various conditions. 8 Do you see that? 9 A. Yes. 10 Q. When you use "development of human 11 pharmaceuticals," do you mean the same thing as 12 "formulation"? 13 A. Yeah, formulation designed to use in 14 humans. 15 Q. Have you, yourself, ever developed a 16 human pharmaceutical? 17 A. I have been developing many 18 formulation for human applications. 19 Q. Are any of those formulations marketed 20 today? 21 A. Not yet. 22 (Pause) 23 Q. When we talk about a formulation, it 24 has or could have different ingredients in 25 there, right?</p>	<p>1 Q. Do inactive ingredients have any 2 activity? 3 A. Otherwise, you don't call it active 4 ingredient. 5 Q. I think you might have misheard my 6 question. 7 Do inactive ingredients have any 8 activity? 9 MR. JAGOE: Objection, lacks 10 foundation, and objection to form. 11 A. Are you talking about inactive 12 ingredient in a formulation? 13 Q. In a formulation, yes. 14 A. Any specific formulation? 15 Q. No specific formulation. 16 A. So the question was: Inactive 17 ingredient has any activity? 18 Q. Yes. 19 A. I don't think so. 20 Q. Why do you say: I don't think so? 21 A. If an inactive ingredient has an 22 activity, we may not probably call it inactive 23 ingredient. 24 Q. How do you understand the term 25 "activity"?</p>
Page 22	Page 24
<p>1 MR. JAGOE: Objection to form. 2 A. Formulation could have a different 3 ingredients. 4 Is that the question? 5 Q. Yes. 6 A. Yes. 7 Q. Two of the terms that I've seen you 8 use -- and I think they are general terms -- one 9 is "active ingredient" could be in formulation? 10 Is that right? 11 A. Active ingredients, you mean drug 12 itself. 13 Q. Is that what you mean by active 14 ingredient? 15 MR. JAGOE: Objection to form. 16 A. It's my understanding when one said 17 "active pharmaceutical ingredient," it means 18 drug. 19 Q. Then another term we have seen used is 20 "inactive ingredients." 21 What do you mean by that? 22 A. Formulation has two ingredients; one 23 is drug and the rest of it called inactive 24 ingredient. 25 (Pause)</p>	<p>1 MR. JAGOE: Objection, vague, form. 2 A. Activity of what? 3 Q. Well, I asked you whether inactive 4 ingredients have any activity. 5 And you said: If an inactive 6 ingredient has an activity, we may not probably 7 call it inactive ingredient. 8 A. Right. 9 Q. So how did you understand "activity" 10 when you were answering that question? 11 A. We are talking about drug 12 formulation -- active ingredient, which is a 13 drug. So drug had a certain activity. That's 14 why we call it drug. 15 Q. So what do you mean by "activity" when 16 you say the active pharmaceutical ingredient has 17 activity? 18 A. For example, aspirin has an activity 19 of a lowering temperature. That's activity. 20 (Pause) 21 Q. So when you say that an active 22 pharmaceutical ingredient has activity, you mean 23 that it will have some effect in the human body, 24 right? 25 A. Some intended effect.</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 25	Page 27
<p>1 (Pause)</p> <p>2 Q. I think I understand the activity now.</p> <p>3 So inactive ingredients have</p> <p>4 functions?</p> <p>5 A. Inactive ingredients have their</p> <p>6 individual functions.</p> <p>7 Q. And those functions are in the</p> <p>8 formulation as opposed to in the body, right?</p> <p>9 MR. JAGOE: Objection to form.</p> <p>10 A. I'm not quite sure what you mean.</p> <p>11 Q. Well, you seem to be drawing a</p> <p>12 distinction between activity and function when</p> <p>13 it comes to an active ingredient, so I'm trying</p> <p>14 to understand what that is.</p> <p>15 MR. JAGOE: Objection to form.</p> <p>16 A. I thought when you say "function," you</p> <p>17 meant excipients, inactive ingredient.</p> <p>18 Q. Yes.</p> <p>19 And you told me that inactive</p> <p>20 ingredients don't have activity.</p> <p>21 Do you agree they have function?</p> <p>22 So I'm trying to understand what's the</p> <p>23 difference between "activity" and "function," as</p> <p>24 you understand the words.</p> <p>25 A. Well, your question in the beginning</p>	<p>1 formulations in this case, it has nothing to do</p> <p>2 with -- you are not answering on behalf of an</p> <p>3 expert for Teva.</p> <p>4 (Pause)</p> <p>5 A. Unless it is in my report, I will</p> <p>6 probably need to know more specifics before</p> <p>7 giving you an answer.</p> <p>8 Q. Well, for example, if we look at -- do</p> <p>9 you know what the Handbook of Pharmaceutical</p> <p>10 Excipients is?</p> <p>11 A. Yes, I do.</p> <p>12 Q. Ask the -- may I call it "the HPE"?</p> <p>13 Is that okay with you?</p> <p>14 A. Sure.</p> <p>15 Q. Does the HPE list out different</p> <p>16 inactive ingredients?</p> <p>17 A. Yes, it does.</p> <p>18 Q. Does it provide a section for each of</p> <p>19 those inactive ingredients that talks about the</p> <p>20 function?</p> <p>21 A. Yes, it does.</p> <p>22 Q. Does the HPE only list one inactive --</p> <p>23 sorry.</p> <p>24 Start again.</p> <p>25 Does the HPE only list one function</p>
Page 26	Page 28
<p>1 was active ingredient. So active ingredient has</p> <p>2 activity of intended bioactivity.</p> <p>3 And later, you asked me about inactive</p> <p>4 ingredients. Yeah, each inactive ingredient has</p> <p>5 its function. That's why formulation scientists</p> <p>6 add certain inactive ingredients, which you also</p> <p>7 call excipients.</p> <p>8 Q. When you say that "each inactive</p> <p>9 ingredient has its function," do you mean that</p> <p>10 each inactive ingredient has one function?</p> <p>11 MR. JAGOE: Objection to form.</p> <p>12 And this is outside the scope of the</p> <p>13 declaration.</p> <p>14 So if you want a tutorial from Dr.</p> <p>15 Park, he's not giving it on behalf of Teva.</p> <p>16 A. Did I mention anything about it in my</p> <p>17 report?</p> <p>18 Q. I'm just asking you now. You said:</p> <p>19 Each ingredient -- each -- sorry, let me start</p> <p>20 again -- each inactive ingredient has its</p> <p>21 function.</p> <p>22 Do you mean that each inactive</p> <p>23 ingredient has only one function?</p> <p>24 MR. JAGOE: Objection to form.</p> <p>25 And if it's not tied to the</p>	<p>1 for each inactive ingredient?</p> <p>2 MR. JAGOE: Objection, compound.</p> <p>3 Can you show him the HPE if you want</p> <p>4 to ask him questions about it?</p> <p>5 A. I would like to see exactly what</p> <p>6 section of the HPE you are talking about.</p> <p>7 Can you show me any copy of HPE?</p> <p>8 Q. You need to see the HPE to tell me</p> <p>9 whether, for each inactive ingredient listed in</p> <p>10 the HPE, it lists only one function?</p> <p>11 A. I don't remember the whole HPE itself.</p> <p>12 So if you can show me specific section, or copy</p> <p>13 of a chapter, let's talk about that then.</p> <p>14 Q. That's not what I'm asking you.</p> <p>15 I'm asking you -- well, let me ask you</p> <p>16 this way: How many times in your career have</p> <p>17 you looked at the HPE?</p> <p>18 A. Many times.</p> <p>19 Q. About how many?</p> <p>20 Ten?</p> <p>21 A. I don't recall.</p> <p>22 Q. More than 10?</p> <p>23 A. I don't recall.</p> <p>24 Q. Dr. Park, how long have you been a</p> <p>25 formulator for?</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 29	Page 31
<p>1 A. Too long.</p> <p>2 Q. Too long, right?</p> <p>3 A. Thirty-three years.</p> <p>4 Q. That's right.</p> <p>5 Have you ever testified in court that</p> <p>6 you have been doing this for 30 years and have</p> <p>7 looked at the HPE thousands and thousands of</p> <p>8 times?</p> <p>9 A. I'm not sure whether I said:</p> <p>10 Thousands and thousands of times. I don't think</p> <p>11 so.</p> <p>12 Q. Okay.</p> <p>13 Based on your memory of looking at the</p> <p>14 HPE over the last 33 years, you can't tell me</p> <p>15 for even one inactive ingredient in there</p> <p>16 whether it lists multiple functions for inactive</p> <p>17 ingredient?</p> <p>18 A. Again, it is not in my report.</p> <p>19 And if you want to talk about that</p> <p>20 particular HPE, I really like to see the section</p> <p>21 you are talking about.</p> <p>22 Q. We'll look at it later.</p> <p>23 My question is: Based on your memory</p> <p>24 of looking at the HPE over the last 33 years,</p> <p>25 you can't tell me for even one inactive</p>	<p>1 about it. But I cannot talk from my memory,</p> <p>2 okay? And it's not in my report either.</p> <p>3 So please show me the handbook.</p> <p>4 Q. Okay.</p> <p>5 I just want to have it clear.</p> <p>6 You don't remember whether any</p> <p>7 inactive ingredient listed in the HPE has more</p> <p>8 than one function listed for that inactive</p> <p>9 ingredient?</p> <p>10 MR. JAGOE: Asked and answered.</p> <p>11 A. I simply asked to see the actual</p> <p>12 handbook before answering.</p> <p>13 Q. I'll show it to you, but I want an</p> <p>14 answer to my question first.</p> <p>15 Without the handbook, you don't</p> <p>16 remember whether any inactive ingredient listed</p> <p>17 in the HPE has more than one function listed for</p> <p>18 that inactive ingredient?</p> <p>19 MR. JAGOE: Asked and answered.</p> <p>20 A. If you have a handbook, show me first</p> <p>21 and I will answer.</p> <p>22 Q. I will show you after. I would</p> <p>23 like -- the question is without the handbook.</p> <p>24 MR. JAGOE: Move on. You are not</p> <p>25 going to get an answer. So you don't have to</p>
Page 30	Page 32
<p>1 ingredient in there whether it lists multiple</p> <p>2 functions for that inactive ingredient?</p> <p>3 A. Again, as I said before, if something</p> <p>4 you are asking is not in my report, I would like</p> <p>5 to see some HPE itself, or at least a copy of</p> <p>6 it, so then we can talk about it.</p> <p>7 Q. Are you refusing to answer my</p> <p>8 question?</p> <p>9 MR. JAGOE: He answered your question.</p> <p>10 A. I don't have any copy of the handbook</p> <p>11 you are talking about, so I cannot answer.</p> <p>12 Q. Well, that's the whole point. The</p> <p>13 question is based on your memory.</p> <p>14 And if the answer is "no," that's</p> <p>15 fine. But I would like an answer to my</p> <p>16 question, please.</p> <p>17 MR. JAGOE: He answered the question.</p> <p>18 BY MR. CALVOSA:</p> <p>19 Q. Based on your memory of looking at the</p> <p>20 HPE over the last three years, you can't tell me</p> <p>21 for even one inactive ingredient in there</p> <p>22 whether it lists multiple functions for that</p> <p>23 inactive ingredient?</p> <p>24 A. Well, again, in the absence of actual</p> <p>25 HPE -- if I have actual handbook, I can talk</p>	<p>1 say any more.</p> <p>2 You have answered it five times.</p> <p>3 Move on.</p> <p>4 MR. CALVOSA: If you want to move for</p> <p>5 a protective order, I'm happy to have Judge</p> <p>6 Hammer and Judge Salas on the phone to listen to</p> <p>7 this.</p> <p>8 MR. JAGOE: I'm not moving for a</p> <p>9 protective order --</p> <p>10 MR. CALVOSA: Fine.</p> <p>11 MR. JAGOE: -- I'm telling you to move</p> <p>12 on to another question.</p> <p>13 MR. CALVOSA: Oh, no. I'm going to</p> <p>14 ask this over and over.</p> <p>15 MR. JAGOE: Go ahead.</p> <p>16 You don't have to respond.</p> <p>17 MR. CALVOSA: Yes, he does. You know</p> <p>18 he does.</p> <p>19 MR. JAGOE: I know he doesn't.</p> <p>20 MR. CALVOSA: You have a case that</p> <p>21 says that?</p> <p>22 You have move for a protective order.</p> <p>23 If you don't want to do that, I'm going to ask</p> <p>24 the same question.</p> <p>25 MR. JAGOE: Keeping asking, but he's</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 33	Page 35
<p>1 not going to respond. 2 MR. CALVOSA: He has to respond. 3 BY MR. CALVOSA: 4 Q. Without the HPE in hand, you don't 5 remember whether any inactive ingredient listed 6 in the HPE has more than one function listed for 7 that inactive ingredient? 8 MR. JAGOE: You don't have to respond 9 beyond what you have already said. 10 MR. CALVOSA: He has to answer the 11 question. 12 MR. JAGOE: He did. 13 MR. CALVOSA: Are you going to move 14 for a protective order? 15 MR. JAGOE: No. 16 MR. CALVOSA: Then you can't put 17 speaking objections on the record, or else we 18 are going to move for sanctions. 19 MR. JAGOE: You are abusing the 20 witness. 21 MR. CALVOSA: No, I'm not. 22 MR. JAGOE: Yes, you are. 23 MR. CALVOSA: I can't get an answer to 24 my question. 25 MR. JAGOE: You have asked the same</p>	<p>1 talking about. 2 Q. If you don't want to answer, that's 3 fine. 4 (Pause) 5 Q. In paragraph 8, last sentence, you 6 say, for example -- this is Park 1: For 7 example, I have extensive research experience in 8 oral drug delivery formulations ranging from 9 fast dissolving tablets to gastric retention 10 formulations using commonly known pharmaceutical 11 excipients as well as newly synthesized polymers 12 and hydrogels for sustained drug delivery 13 applications. 14 Do you see that? 15 A. Yes. 16 Q. What is one example of a commonly 17 known pharmaceutical excipient? 18 (Pause) 19 A. Like carboxymethyl cellulose. 20 (Pause) 21 Q. You said carboxy -- 22 A. -- methyl cellulose, CMC. 23 Q. CMC. 24 What is the function of CMC? 25 A. CMC, as I recall, can be used as a</p>
Page 34	Page 36
<p>1 question five times, and he responded five 2 times. You are not going to keep asking the 3 same question. 4 MR. CALVOSA: I have seven hours. 5 I'll ask the same question over and over. 6 MR. JAGOE: Okay, and you'll get the 7 same answer. 8 MR. CALVOSA: That's fine. 9 MR. JAGOE: So you don't have to 10 respond beyond what you already said. 11 MR. CALVOSA: He has to respond to the 12 question. 13 MR. JAGOE: Not beyond what he already 14 said. 15 BY MR. CALVOSA: 16 Q. Dr. Park, without the handbook in 17 front of you, you don't remember whether any 18 inactive ingredient listed in there has more 19 than one function listed for that inactive 20 ingredient? 21 A. That's not what I said. 22 I simply said Handbook of 23 Pharmaceutical Excipient is a big book. So if 24 you want to talk about a specific section of the 25 book, show me the book exactly what you are</p>	<p>1 filler or diluent, for example. 2 Q. You said: For example. 3 Does it have other functions? 4 A. Sometimes it may use binder, but that 5 depends on formulation scientists -- how they 6 are using it. 7 Q. What do you mean -- "it depends on how 8 the formulation scientist is using it"? 9 (Pause) 10 A. Another common excipient is 11 hydroxypropyl methylcellulose. So HPMC -- the 12 formulation scientist decide to use it as a 13 filler, he use larger quantity to use as a 14 filler. So depending on formulation scientist, 15 they define a main function. 16 (Pause) 17 Q. So the main function of -- here use 18 HPMC as the example -- is defined based on how 19 the formulation scientist wants to use it? 20 MR. JAGOE: Objection, form. 21 A. Some formulation scientists, yeah, 22 decide to use one excipient for certain 23 application, certain function. 24 Q. So for the HPMC, if the formulation 25 scientist decides to use it as a filler, it's a</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 37	Page 39
<p>1 filler, in your opinion?</p> <p>2 A. In that formulation.</p> <p>3 Q. And if the pharmaceutical -- sorry.</p> <p>4 If the formulation scientist decides</p> <p>5 to use the HPMC as a binder in a specific</p> <p>6 formulation, then it's a binder in that</p> <p>7 formulation, in your opinion?</p> <p>8 A. That's what the formulation scientist</p> <p>9 use it as a binder.</p> <p>10 Q. What if the formulation scientist</p> <p>11 decides to use HPMC as, say, a disintegrant in a</p> <p>12 formulation?</p> <p>13 Does that make it a disintegrant in</p> <p>14 that formulation?</p> <p>15 MR. JAGOE: Objection to form,</p> <p>16 incomplete hypothetical.</p> <p>17 A. Each formulation is very different, so</p> <p>18 I need to know exactly what formulation</p> <p>19 ingredient you are talking about -- not only</p> <p>20 that, how you make it. Only then I can tell you</p> <p>21 what the real function is.</p> <p>22 Q. Why is that?</p> <p>23 Why do you need to know what the</p> <p>24 formulation is and how it's made to determine</p> <p>25 the function?</p>	<p>1 will write down individual ingredient and</p> <p>2 specify its function.</p> <p>3 (Pause)</p> <p>4 Q. Are you familiar with dextrose?</p> <p>5 A. You mean carbohydrate?</p> <p>6 Q. Yes.</p> <p>7 A. Yes.</p> <p>8 Q. Do you remember, sitting here today,</p> <p>9 what the function is of dextrose?</p> <p>10 A. I don't recall all of them, but</p> <p>11 dextrose is used to make a solution formulation</p> <p>12 for injectables.</p> <p>13 I don't recall all its function.</p> <p>14 Q. Okay.</p> <p>15 (Pause)</p> <p>16 MR. CALVOSA: Handing you what I have</p> <p>17 marked as Park 3.</p> <p>18 * * *</p> <p>19 (Exhibit Park 3, Multipage document</p> <p>20 entitled: Handbook of Pharmaceutical Excipients,</p> <p>21 Sixth edition: Dextrose (no Bates Nos.), marked</p> <p>22 for identification)</p> <p>23 * * *</p> <p>24 MR. CALVOSA: I'll represent to you</p> <p>25 that this is the entry for dextrose for the</p>
Page 38	Page 40
<p>1 A. Otherwise simply having a certain</p> <p>2 ingredient does not tell me exactly how it</p> <p>3 function.</p> <p>4 Q. So you need to see the actual function</p> <p>5 in the formulation of the inactive ingredient to</p> <p>6 determine how it functions?</p> <p>7 MR. JAGOE: Objection,</p> <p>8 mischaracterizes.</p> <p>9 A. I like to see the overall ingredients</p> <p>10 and how a formulation is made. Then I can tell</p> <p>11 you what each function of each ingredient is.</p> <p>12 Q. In certain formulations, it's possible</p> <p>13 for the formulator to use one ingredient to</p> <p>14 serve two different functions, right?</p> <p>15 MR. JAGOE: Objection, incomplete</p> <p>16 hypothetical.</p> <p>17 A. Again, I don't know what specific</p> <p>18 example you are talking about.</p> <p>19 But each formulation, one ingredient</p> <p>20 has one function.</p> <p>21 Q. I think I understand better.</p> <p>22 So for any given formulation, one</p> <p>23 inactive ingredient will only have one function?</p> <p>24 A. Well, again, it's too general.</p> <p>25 But that's why formulation scientist</p>	<p>1 pharmaceutical -- or, sorry -- for the Handbook</p> <p>2 of Pharmaceutical Excipients, Sixth edition,</p> <p>3 from 2009.</p> <p>4 (Pause)</p> <p>5 THE WITNESS: Yes.</p> <p>6 BY MR. CALVOSA:</p> <p>7 Q. Is this the -- is this -- sorry.</p> <p>8 Is an entry like this from the HPE</p> <p>9 something you are familiar with?</p> <p>10 (Pause)</p> <p>11 A. Yes.</p> <p>12 Q. The HPE is something that, in your</p> <p>13 opinion, a POSA would be familiar with?</p> <p>14 A. I think so.</p> <p>15 Q. On page 222 here of Park 3, there</p> <p>16 is --</p> <p>17 A. Page 222?</p> <p>18 Q. 222, yeah.</p> <p>19 For dextrose, there is a bold heading</p> <p>20 that says: 6: Functional Category?</p> <p>21 A. Yes.</p> <p>22 Q. It lists more than one function for</p> <p>23 dextrose, right?</p> <p>24 (Pause)</p> <p>25 A. Yes.</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 41	Page 43
<p>1 Q. And it lists: Diluent, therapeutic 2 agent, tonicity agent, and sweetening agent. 3 Right? 4 A. That's what it says. 5 MR. JAGOE: It says "tablet and 6 capsule diluent," to be precise. 7 A. That's right. You simply said 8 "diluent," but it says "tablet capsule diluent." 9 Q. Sure, tablet and capsule diluent. 10 Have you ever used dextrose to 11 formulate tablets in your 33 years of 12 experience? 13 MR. JAGOE: You don't have to disclose 14 any proprietary information that would be 15 confidential to any other party, but I guess you 16 can answer yes or no. 17 A. Yes. 18 Q. What was the function of the dextrose 19 in the formulation you made? 20 A. Sweetening agent. 21 (Pause) 22 Q. How did you determine that the 23 function of dextrose in the formulation you made 24 was a sweetening agent? 25 A. In my case, I used glucose to make a</p>	<p>1 So in that specific formulation we 2 were talking about, did you do any tests to 3 confirm that it was a sweetening agent? 4 A. Did I test it to confirm it was a 5 sweetening agent? 6 Q. Yes. 7 A. When you put it in your mouth, it's 8 sweet, so it's a sweetening agent. 9 Q. Did you actually carry out that test 10 and try it and confirm it was sweet? 11 A. Myself? 12 Q. Yes. 13 A. Of course. 14 Q. Okay. 15 Do you self-administer every 16 formulation you make? 17 A. No. 18 (Pause) 19 Q. What made you do it with this one? 20 A. This was for a fast-dissolving tablet 21 containing bitter-tasting caffeine, so I added 22 dextrose to make it sweeter. 23 (Pause) 24 Q. What was the total milligram weight of 25 that formulation?</p>
Page 42	Page 44
<p>1 tablet sweet, so it is sweetening agent in my 2 formulation. 3 Q. So you determined the function was a 4 sweetening agent because of how you used it in 5 the formulation, right? 6 A. That's right. 7 (Pause) 8 Q. Did the dextrose have any other 9 function in the formulation that you made it in? 10 (Pause) 11 A. The other case I used as a therapeutic 12 agent. 13 Q. Sorry. My question wasn't clear. 14 In the specific formulation we were 15 just you talking about where you used it as a 16 sweetening agent, did the dextrose have any 17 other function other than being a sweetening 18 agent? 19 A. No. 20 Q. Is it possible that it had another 21 function other than being a sweetening agent? 22 A. I'm not sure what you mean by: It's 23 possible. 24 Can you give me a specific example? 25 Q. Sure.</p>	<p>1 A. I'm sorry? 2 Q. What was the total milligram weight of 3 that formulation? 4 A. Formulation can vary depending on how 5 much you deliver the ingredient you want to. So 6 it can be as small as 5-milligram up to 7 500-milligram. 8 Q. In that specific formulation where you 9 put dextrose for the fast-dissolving tablet, how 10 many milligrams was that formulation? 11 A. I don't recall. 12 Q. What other ingredients were in that 13 formulation other than dextrose and the active? 14 (Pause) 15 A. What I say may have caffeine in -- 16 MR. JAGOE: Caffeine. 17 A. -- caffeine. 18 (Pause) 19 A. In other excipients, I don't remember 20 exactly. 21 Q. In that specific formulation, how much 22 dextrose did you add? 23 A. It was a while ago, and I just don't 24 recall exactly -- exactly how much excipient I 25 used.</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 45	Page 47
<p>1 Q. Do you remember if it was a little 2 bit? 3 Or a lot? 4 A. Sweetening agent, depending on 5 formulation, can be small or it can be a larger 6 than, you know, small portion that you may need 7 otherwise. 8 So I don't recall. 9 Q. Why would you use a larger amount of 10 sweetening agent in a given formulation? 11 A. If you use a higher amount of 12 caffeine, for example, you need proportional 13 larger amount of sweetening agent. 14 Q. Is there any other reason you would 15 use a larger amount of sweetening agent in a 16 given formulation? 17 A. At this point, I don't see why. 18 Q. I mentioned the person of ordinary 19 skill of the POSA in one of my questions before. 20 And you provide a definition for a 21 POSA, if we could look at paragraph 17 of Park 22 1, and also paragraph 5 of Park 2? 23 (Pause) 24 A. Yes. 25 Q. And I want to focus on -- in paragraph</p>	<p>1 instead of saying paragraph 17. 2 How did you come up with your 3 definition of the formulation POSA? 4 MR. JAGOE: Don't disclose any 5 communications you've had with counsel. 6 (Pause) 7 A. Based on my experience, my former 8 students who graduated from Purdue have a Ph.D. 9 degree. They go to industry and actually 10 develop their own formulation. And so this 11 definition is based on my experience. 12 And also, throughout the observation I 13 have made over the years, this is definition for 14 a POSA for a formulation scientist. 15 Q. Did you consider the '427 and '467 16 patents when you were trying to arrive at your 17 definition of a formulation POSA? 18 A. Could you repeat the question? 19 Was I aware of two patents before 20 coming up to -- 21 Q. So let me answer the -- in coming up 22 with your definition of the formulation POSA, 23 did you consider the two patents that you opine 24 about here -- the '467 patent and the '427 25 patent?</p>
Page 46	Page 48
<p>1 17 of Park 1, this is your definition of a POSA 2 for the '427 patent, right? 3 A. Yes. 4 Q. In Park 5 -- sorry -- park 2, 5 paragraph 5, you provide a definition of a POSA 6 for the '467 patent. 7 Is that right? 8 A. Yes. 9 Q. And can you just confirm for me that 10 your definition of a POSA for the '467 patent is 11 the same as your definition of a POSA for the 12 '427 patent? 13 (Pause) 14 A. Yes. 15 (Pause) 16 Q. And I believe you define the '467 and 17 '427 patent -- 18 (Pause) 19 A. Was there a question to me? 20 Q. I'll ask a different question. 21 Is it okay if I refer to your POSA for 22 the '467 patent and '427 patent as "the 23 formulation POSA"? 24 A. That's fair. 25 Q. So we could just look at Park 1 -- so</p>	<p>1 (Pause) 2 A. Yes, I did. 3 Q. If you turn to paragraph 16 of Park 4 1 -- 5 A. Paragraph -- 6 Q. Sixteen -- one page before -- page 5. 7 (Pause) 8 Q. I'm looking at the third sentence 9 there where you say: Factors that may be 10 considered in determining the level of ordinary 11 skill in the art may include. 12 And then you list five different 13 factors. 14 Do you see those? 15 A. Yes. 16 Q. Then you say, after you list the five 17 factors: In a given case, not every factor may 18 be present, and one or more factors may 19 predominate. 20 Do you see that? 21 A. Yes. 22 Q. Did you consider any of the five 23 factors here in paragraph 16 in coming up with 24 your definition of the formulation POSA? 25 (Pause)</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 49	Page 51
<p>1 A. Yeah, this No. 1. 2 Q. Any others than No. 1? 3 A. And No. 4. 4 Q. Any others than 1 and 4? 5 A. No. 5. 6 Q. Is there a reason that you didn't 7 consider factors Nos. 2 and 3? 8 A. I did not say I did not consider. 9 I said that one or more factors may 10 predominate. So those are factors that 11 predominated, to my mind. 12 Q. Okay. 13 I was asking you if you considered the 14 factors, not predominate. 15 But did you consider factor 2, then? 16 A. Yes. 17 Q. Did you consider factor 3? 18 A. Yes. 19 Q. Can you tell me what your 20 consideration was for factor 4: The 21 sophistication of the technology? 22 A. To my, when I reviewed the patents, 23 there was really not much sophistication. 24 Formulation was simply a mixture of excipients 25 at certain ratio.</p>	<p>1 ingredients. 2 And you should be able to make it in 3 such a way that you can get approval from the 4 U.S. Food and Drug Administration. 5 We are not talking about any tablet 6 can you buy on the street. We are talking about 7 a tablet, capsule, and other formulation that we 8 use. You have to make it sure that they are 9 safe and effective. You require training. 10 Pharmacists go four years or six years 11 training; and after that, you may have even more 12 training to make sure you know what you are 13 doing. 14 (Pause) 15 Q. So someone with just a high school 16 degree and no experience in the pharmaceutical 17 industry wouldn't qualify under your definition 18 of POSA, right? 19 A. That's right. No, they are not 20 qualified. 21 Q. Is it your opinion that they couldn't 22 make a formulation like that described in the 23 formulation patents that we are talking about 24 today? 25 A. I'm sorry. The question -- I forgot</p>
Page 50	Page 52
<p>1 Q. What would make a formulation 2 sophisticated, in your opinion? 3 A. For example, if you have a cancer 4 formulation, that formulation goes to deliver 5 drugs to everywhere in the body. That's where 6 side effect comes. 7 So if someone comes up with a 8 formulation that mostly direct only to cancer 9 cell, that is really sophisticated formulation. 10 (Pause) 11 Q. If the formulations in the ones you 12 just mentioned in the formulation patents that 13 we are talking about here do not have much 14 sophistication, why is it your opinion that the 15 person of ordinary skill in the art would have a 16 Ph.D. in the field related to pharmaceutical 17 sciences and at least one year of experience in 18 pharmaceutical formulation; or a lower level of 19 education, such as a Master's degree, if that 20 person had a higher degree of experience? 21 A. You still need to be trained in 22 certain area to make a formulation. It's not 23 like anybody can go to the garage and make a 24 tablet or capsule. They have to be trained to 25 know how to handle excipients or active</p>	<p>1 in the first part of your question. 2 Q. It's your opinion that you need the 3 qualifications that you mentioned before -- the 4 training -- to make the formulations that we are 5 talking about here today, right? 6 MR. JAGOE: Objection to form. 7 A. I think I mentioned what may be a 8 person of ordinary skill in the art. That's why 9 I mentioned, as I explained in my paragraph 17. 10 Q. Okay. 11 MR. CALVOSA: Would you like to take a 12 little break? 13 MR. JAGOE: I would. 14 MR. CALVOSA: Okay. Let's do it. 15 MS. HANSON: Two things before we go 16 off the record. 17 First, to the extent that Mr. Jagoe is 18 objecting outside the scope -- 19 (Pause) 20 MS. HANSON: To the extent that Mr. 21 Jagoe is objecting as outside the scope and that 22 the testimony is not on behalf of the Teva 23 defendants, the Mylan defendants also join this 24 objection, and would like to do so on a standing 25 basis going forward so that I don't need to</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 53	Page 55
<p>1 continually interject. 2 The other thing I was going to bring 3 up is that we should probably get appearances 4 from those on the phone. 5 MR. JAGOE: Yes. 6 You are granting her standing 7 objection? 8 MR. CALVOSA: Of course. 9 (Pause) 10 MR. CALVOSA: It's okay with me. 11 (Pause) 12 THE VIDEOGRAPHER: The time now is 13 10:38 a.m. We are off the record. 14 (Recess from 10:38 a.m. to 10:54 a.m.) 15 THE VIDEOGRAPHER: This marks the 16 beginning of tape No. 2. The time now is 10:54 17 a.m. We are back on the record. 18 BY MR. CALVOSA: 19 Q. Welcome back, Dr. Park. 20 A. Thank you. 21 Q. During the last session, we talked 22 about inactive ingredients or excipients having 23 certain functions. 24 Do you remember that? 25 A. Yes.</p>	<p>1 properties, one can choose carrier as an 2 excipient. 3 Q. And the carrier would be combined with 4 the drug product for what purpose? 5 MR. JAGOE: Objection to form. 6 A. Again, if, as I mentioned, for 7 example, if drug particles are too small, it's 8 difficult to handle. Then you may resort to 9 bigger particle excipients. Then it carries the 10 drug, so sometimes you use carrier in 11 formulation. 12 Q. Just so the record is clear, did you 13 say "resort to bigger particle excipients"? 14 Or "absorb"? 15 A. Small particle drug can bind to bigger 16 particle, so it can be a physical binding, or 17 certain level of adhesions, physical 18 entrapment -- anyway, just part of the bigger 19 particle. 20 Q. The second sort of functional 21 classification there for excipients that you 22 have is diluent? 23 A. Yes. 24 Q. Would a POSA know what a diluent is? 25 (Pause)</p>
Page 54	Page 56
<p>1 (Pause) 2 Q. If you go to Park 1, paragraph 46 -- 3 and the span is from page 19 to 20 -- feel free 4 to read the whole thing. I would like to focus 5 on the last sentence. 6 (Pause) 7 A. Yes. 8 Q. You say here: Thus, excipients are 9 sometimes characterized by their function. 10 And you give certain examples of 11 function of excipients. 12 Is that right? 13 A. Yes. 14 Q. The first one listed there is 15 carriers? 16 A. Yes. 17 Q. Would a POSA -- the formulation 18 POSA -- be familiar with a carrier? 19 A. I think so. 20 Q. What would the formulation POSA 21 understand a carrier to be? 22 A. Well, sometimes drug molecule -- drug 23 particles may be too small. Then they can be 24 combined with a larger particle size, which is 25 called carrier. So, depending on drug itself</p>	<p>1 A. I think so. 2 Q. And so it's clear, would a formulation 3 POSA know what a diluent is? 4 A. I'm sure they know. 5 Q. What would a formulation POSA 6 understand a diluent to be? 7 A. Well, diluents are usually used when 8 amount of active ingredients or drug is very 9 small. It is difficult to handle. So you add 10 other excipient called diluent to bulk up the 11 whole volume so it's easier to handle to make a 12 certain size of tablet or capsules. 13 Q. The third function listed there -- 14 binders -- would a formulation POSA know what a 15 binder is? 16 A. Oh, absolutely. 17 Q. And how would a formulation POSA 18 understand binder? 19 A. For example, sometimes you need to 20 make a granule because granules are easier to 21 flow. So then to make a granules, you sometimes 22 add a binder to make a powder form into granule. 23 So a binder can be used to make granules. 24 Or sometimes, you just use binder to 25 make a better tablets.</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 57	Page 59
<p>1 Q. The fourth one -- fillers -- would the 2 formulation POSA know what a filler is? 3 A. Yes. 4 Q. What is a filler? 5 Or what would a formulation POSA 6 understand a filler to be? 7 A. Filler is usually used -- exchangeable 8 term as a diluent. So filler is also used to 9 make a certain volume of a formulation. 10 Q. The next one there -- disintegrants -- 11 would a formulation POSA know what a 12 disintegrant is? 13 A. Absolutely. 14 Q. How would a formulation POSA 15 understand disintegrant? 16 A. Disintegrants are usually hydrophilic 17 polymer excipients that absorb water and swell. 18 In so doing, it breaks up tablets. So it is 19 called disintegrant. 20 Q. Makes sense. 21 The next one -- lubricants -- would a 22 formulation POSA know what a lubricant is? 23 A. Oh, absolutely. 24 Q. How would a formulation POSA 25 understand lubricant?</p>	<p>1 hydrophobic -- meaning they do not dissolve in 2 water quite easily. So you use a solubilizer to 3 aid dissolving such drug in water. 4 Q. The last one you have listed here is 5 thickeners. 6 Would a POSA understand -- or would a 7 formulation POSA understand what a thickener is? 8 A. Yes. 9 Q. How would a formulation POSA 10 understand thickener? 11 A. Thickeners are usually used to make 12 sure that the solution formulation has a certain 13 viscosity, so that particles in the formulation 14 does not settle and become aggregate. So there 15 are a variety of different reasons to use 16 thickeners. 17 Q. Let's go back to the lubricants. 18 And as I'm sure you know, that's one 19 of the terms that you opined on in your 20 declaration -- Park 2 -- right? 21 A. Yes. 22 Q. For that one, you gave a nice, long 23 answer, so let's break it down. 24 (Pause) 25 Q. The first part you were talking about</p>
Page 58	Page 60
<p>1 A. Lubricant is used, for example, when 2 you make a tablet, when you compress a tablet 3 using machine, without lubricant, portion of the 4 tablet may stick to dies, toolings, so that you 5 do not produce intact tablet; so you use 6 lubricants. 7 The lubricants, as you have shown here 8 Handbook of Pharmaceutical Excipient -- they 9 have specific lubricant section. If you have 10 it, we can go through it, too. 11 There are specific excipients known as 12 a lubricant. And they are used in a very small 13 quantity to make intact tablet. Sometimes it 14 may be used in capsule formulation, too, as 15 necessary. 16 So lubricant is a specific class of 17 excipients. And they are usually hydrophobic, 18 so they are used in a very low quantity. 19 Q. And the next one -- solubilizers -- 20 would a POSA know what a solubilizer? 21 A. Yes. 22 Q. How would a POSA understand 23 solubilizer? 24 A. Solubilizer is used to dissolve a 25 certain drug, because many drugs are</p>	<p>1 compressing a tablet using a machine. 2 You said: Without lubricant, a 3 portion of the tablet may stick to dies, 4 tooling, so that you do not produce intact 5 tablet. 6 Is that right? 7 A. Yes. 8 Q. Using the -- this compression tablet 9 method -- is it possible to make an intact 10 tablet without using a lubricant? 11 MR. JAGOE: Objection to form, 12 incomplete hypothetical. 13 A. Is it possible? Well, I don't know. 14 Depending on formulation. Without knowing exact 15 formulation, I cannot say. 16 Q. Well, I'm telling you there is no 17 lubricant in the formulation. 18 Is it possible to make an intact 19 tablet using the compression method we just 20 discussed without a lubricant? 21 MR. JAGOE: Same objection. 22 A. Again, in the absence of detailed 23 information, it is difficult to answer. 24 For example, if you have a very low 25 pressure, you may have a different tablet. So I</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 61	Page 63
<p>1 need exact details or specific example to answer 2 your question. 3 (Pause) 4 Q. Have you ever testified that billions 5 of tablets are made every day, and all of them 6 use a lubricant? 7 A. Have I testified before whether -- 8 Q. Have you testified in a courtroom the 9 following language: Billions of tablets are 10 made every day and all of them use a lubricant? 11 A. I don't recall whether I said in a 12 courtroom or not, but that sounds right. 13 Q. Have you ever testified in a courtroom 14 before, the following: Without a lubricant, you 15 cannot make an intact tablet from a die? 16 MR. JAGOE: If you have a basis to 17 think he said that under oath, you should show 18 him the transcript. 19 MR. CALVOSA: I'm just asking if he 20 said it. 21 He can answer now. 22 MR. JAGOE: You can't ask the question 23 unless have a basis for asking it. 24 MR. CALVOSA: I can ask any question I 25 would like.</p>	<p>1 Q. Sure. Thank you for answering my 2 question. 3 MR. CALVOSA: Can we go off the record 4 for a second? 5 THE VIDEOGRAPHER: The time now is 6 11:07 a.m. We are off the record. 7 MR. JAGOE: I didn't agree to go off 8 the record. 9 MR. CALVOSA: Okay. 10 MR. JAGOE: Why are we going off the 11 record? 12 MR. CALVOSA: That's fine. Go back on 13 the record. I was just trying to do this as a 14 professional courtesy, but -- 15 MR. JAGOE: If you tell me you want to 16 talk off the record, but you can't just go off 17 the record unilaterally. 18 MR. CALVOSA: If you have an objection 19 which you do, we don't have to. 20 MR. JAGOE: Tell me why you want to go 21 off the record. 22 MR. CALVOSA: Because I would like to 23 talk to you and not put it on the record. I 24 would think it would be more productive that 25 way.</p>
Page 62	Page 64
<p>1 MR. JAGOE: Oh, no, you can't. 2 MR. CALVOSA: It might not be a proper 3 question, but I can ask any question I would 4 like. 5 MR. JAGOE: No, you can't. 6 MR. CALVOSA: Yes, I can. 7 MR. JAGOE: No, you can't. 8 MR. CALVOSA: Counsel, please. I 9 mean, the speaking objections are crazy. 10 MR. JAGOE: I just made my objection. 11 You engaged me. 12 MR. CALVOSA: Okay. 13 MR. JAGOE: If you have a basis for 14 asking that question, you should show him the 15 transcript. 16 BY MR. CALVOSA: 17 Q. Dr. Park, do you recall ever 18 testifying in open court that: Without a 19 lubricant, you cannot make an intact tablet 20 formulation with a die? 21 MR. JAGOE: You have the right to see 22 the transcript, if he has one, Doctor. 23 A. Again, I don't recall. 24 And if you have any documents you can 25 show me, we can talk about it for the details.</p>	<p>1 MR. JAGOE: Okay, let's go off the 2 record. 3 MR. CALVOSA: Do you want to excuse 4 the witness? Or -- 5 MR. JAGOE: Sure. 6 MR. CALVOSA: We are now off the 7 record. 8 (Recess from 11:08 a.m. to 11:11 a.m.) 9 THE VIDEOGRAPHER: The time now is 10 11:11 a.m. We are back on the record. 11 BY MR. CALVOSA: 12 Q. Dr. Park, have you ever made a tablet 13 using the compression method we are talking 14 about without using lubricant? 15 A. We are talking about tablet? 16 Q. Tablet, yes. 17 A. I only use lubricant most of the time 18 when I make a tablet. 19 Q. The second thing you said when you 20 were giving that long definition of lubricant 21 was that: The lubricants are shown in the 22 Handbook of Pharmaceutical Excipient, they have 23 specific lubricant section -- 24 A. Yes. 25 Q. -- is that right?</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 65	Page 67
<p>1 A. Yes.</p> <p>2 Q. If something is not in the</p> <p>3 pharmaceutical -- sorry.</p> <p>4 If something is not in the HPE as a</p> <p>5 lubricant, does that mean it's not a lubricant?</p> <p>6 MR. JAGOE: Objection to form.</p> <p>7 A. Not sure what we are talking about.</p> <p>8 Can you give me a specific example?</p> <p>9 Q. Sure.</p> <p>10 * * *</p> <p>11 (Exhibit Park 4, Multipage document</p> <p>12 entitled: Handbook of Pharmaceutical Excipients,</p> <p>13 Sixth edition: Colloidal Silicon Dioxide (no</p> <p>14 Bates Nos.), marked for identification)</p> <p>15 * * *</p> <p>16 MR. CALVOSA: Handed you what I've</p> <p>17 just marked Park 4.</p> <p>18 I'll represent to you this is an</p> <p>19 excerpt from the Handbook of Pharmaceutical</p> <p>20 Excipients we have been talking about, Sixth</p> <p>21 edition, for -- and correct me if I'm wrong --</p> <p>22 colloidal silicon dioxide.</p> <p>23 BY MR. CALVOSA:</p> <p>24 Q. Is that how you say it?</p> <p>25 A. Yes.</p>	<p>1 Q. You can put that aside for now.</p> <p>2 (Pause)</p> <p>3 Q. You also said in the answer that a</p> <p>4 lubricant is a specific class of excipients and</p> <p>5 they are usually hydrophobic.</p> <p>6 Is that right?</p> <p>7 A. Yes.</p> <p>8 Q. Are any lubricants hydrophilic?</p> <p>9 A. Sometimes.</p> <p>10 Q. What are some examples of hydrophilic</p> <p>11 lubricants?</p> <p>12 A. I think one of them may be</p> <p>13 polyethylene glycol, sometimes called</p> <p>14 polyethylene oxide.</p> <p>15 Q. Any others you can think of?</p> <p>16 A. Not that I can think of now.</p> <p>17 (Pause)</p> <p>18 Q. Polyethylene glycol -- that's what you</p> <p>19 just said -- right? -- polyethylene glycol?</p> <p>20 A. Yes.</p> <p>21 Q. So a POSA would understand that</p> <p>22 polyethylene glycol -- the formulation POSA</p> <p>23 would understand that polyethylene glycol is a</p> <p>24 lubricant, right?</p> <p>25 A. Not -- that's not what I said.</p>
Page 66	Page 68
<p>1 Q. And I'm looking at page 185 of Park 4?</p> <p>2 A. Yes.</p> <p>3 Q. Bottom bolded, again: 6: Functional</p> <p>4 Category.</p> <p>5 It lists several functions here.</p> <p>6 Is that right?</p> <p>7 A. Yes.</p> <p>8 Q. It does not list lubricant as one of</p> <p>9 the functions for colloidal silicon dioxide,</p> <p>10 right?</p> <p>11 A. That's right.</p> <p>12 Q. Would a POSA then understand that</p> <p>13 colloidal silicon dioxide is not a lubricant?</p> <p>14 A. Well, a POSA would understand</p> <p>15 colloidal silicone dioxide probably not used as</p> <p>16 a lubricant as function.</p> <p>17 (Pause)</p> <p>18 Q. Have you ever referred to colloidal</p> <p>19 silicon dioxide as a lubricant?</p> <p>20 A. I don't think I have.</p> <p>21 Q. Do you consider colloidal silicon</p> <p>22 dioxide to be a lubricant?</p> <p>23 A. No. I considered usually as a glidant</p> <p>24 or glidant -- however you say it.</p> <p>25 (Pause)</p>	<p>1 You asked me whether there are</p> <p>2 hydrophilic lubricants. I remember for a</p> <p>3 specific formulation I once tried to use</p> <p>4 polyethylene oxide as a lubricant.</p> <p>5 So -- but polyethylene oxide or</p> <p>6 polyethylene glycol are usually used for some</p> <p>7 other functions.</p> <p>8 Q. But in that specific example you are</p> <p>9 talking about, it was a lubricant because you</p> <p>10 were trying to use it as a lubricant?</p> <p>11 A. That's right. You have to specify you</p> <p>12 use it as a lubricant.</p> <p>13 Q. Polyethylene glycol is also a binder,</p> <p>14 right?</p> <p>15 A. If you have a Handbook of</p> <p>16 Pharmaceutical Excipient, you may find the</p> <p>17 information there, too.</p> <p>18 But one can -- one may be able to use</p> <p>19 it as a binder.</p> <p>20 Q. Have you ever used polyethylene glycol</p> <p>21 in the same formulation as both a binder and a</p> <p>22 lubricant?</p> <p>23 A. No, I don't think that's possible.</p> <p>24 No, I have not.</p> <p>25 Q. Why is that not possible?</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 69	Page 71
<p>1 A. Binder is used to make things bind 2 together, so its function as a lubricant may be 3 very different in that particular formulation. 4 So I don't think -- I personally have 5 not used one excipient for two different 6 functions. 7 (Pause) 8 Q. You have never used one excipient for 9 two different functions in any formulation you 10 have made? 11 (Pause) 12 A. You mean in the same formulation? 13 Q. In the same formulation, yes. 14 A. I don't think so. 15 Q. Is it your opinion that a formulation 16 POSA would not use one excipient for two 17 different functions in the same formulation? 18 A. No, I don't think so. I don't think 19 one excipient can be used two different 20 functions in the same formulation. 21 Q. And it's your opinion that the 22 formulation POSA would have that same 23 understanding, right? 24 A. At least that is what I have been 25 teaching and that is what I have been</p>	<p>1 opposed to a tablet? 2 A. I think capsule formulation sometime 3 you may not even need the lubricant. But 4 sometimes you may need the lubricant if you 5 compact the powder into a certain tablet shape. 6 So depending on formulation, especially capsule, 7 you may not even need a lubricant. 8 (Pause) 9 Q. Okay. 10 (Pause) 11 Q. Would a formulation POSA understand 12 that a lubricant prevents sticking? 13 A. Sticking between? 14 Q. The -- in a tablet formulation between 15 the ingredients in the formulation and the 16 machinery used to make the formulation? 17 A. Well, that's what we talked about 18 before, yes. 19 Q. Okay. 20 So sticking is another way -- prevent 21 sticking is another way to say "reduce the 22 extent of friction"? 23 MR. JAGOE: Objection to form. 24 A. Extent friction is a different thing. 25 Adhesion, friction, maybe the</p>
Page 70	Page 72
<p>1 practicing. 2 Q. Okay. 3 (Pause) 4 Q. Would a formulation POSA understand 5 that a lubricant is used to reduce the extent of 6 friction between the ingredients in the 7 formulation and the machinery? 8 A. I'm sorry. In the middle was not 9 clear. I'm sorry. 10 Q. Sure. 11 Would a formulation POSA understand 12 that a lubricant is used to reduce the extent of 13 friction between the -- 14 A. Used to -- 15 Q. Sorry. I'll ask it again. 16 Would a formulation POSA understand 17 that a lubricant is used to reduce the extent of 18 friction between the ingredients in the 19 formulation and the machinery used to make the 20 formulation? 21 A. Yeah -- I think that's the function of 22 lubricant, to reduce the friction between tablet 23 and tool -- tooling machine. 24 Q. Would a formulation POSA have the same 25 understanding if it was a capsule formulation as</p>	<p>1 lubricant is used to reduce the sticking between 2 tablet and tooling machine, so that when you 3 eject tablet you have an intact form of tablets. 4 Q. Okay. 5 Would a formulation POSA understand 6 that a lubricant is a slippery solid? 7 (Pause) 8 A. I'm not sure what that means, but -- I 9 cannot say, no. 10 What is slippery solid? 11 Q. I don't know. I was reading one of 12 your patents. 13 MR. CALVOSA: Let's take a look at 14 that. 15 * * * 16 (Exhibit Park 5, Multipage document 17 entitled: United States Patent No.: US 6,960,617 18 B2, dated November 1, 2005 (no Bates Nos.), 19 marked for identification) 20 * * * 21 MR. CALVOSA: I've marked for the 22 record Park 5. This is U.S. Patent No. 23 6,960,617 B2. 24 THE WITNESS: Yes. 25</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 73	Page 75
<p>1 BY MR. CALVOSA: 2 Q. And there is a -- in the inventor's 3 section up here -- by the (75) in parenthesis -- 4 there is listed Kinam Park, West Lafayette 5 Indiana, and then (US) in parenthesis. 6 Is that you? 7 A. I hope so. 8 Q. Don't know other Kinam Parks in here? 9 A. This is me, yeah. 10 Q. You are listed as an inventor on this 11 patent, right? 12 A. Yes. 13 Q. Are you familiar with this patent? 14 A. Yes, I am, but it was a while ago, but 15 I remember it, yes. 16 Q. I'm looking in column 31 about line 17 27? 18 A. Yes. 19 Q. You see there it says: A lubricant is 20 necessary. 21 And it goes on? 22 A. Yes. 23 Q. The second sentence, you said: The 24 lubricant is chosen from such slippery solids as 25 talc, magnesium and calcium stearate, stearic</p>	<p>1 A. I don't think that's how you read 2 that. 3 They are simply saying: Lubricant 4 such as talc, magnesium, calcium stearate, 5 stearic acid are slippery solid. 6 That does not mean all slippery 7 solid -- whatever they are -- are lubricants. 8 Q. Does that mean that all -- let me ask 9 it another way. 10 Could you have a lubricant that is not 11 a slippery solid? 12 (Pause) 13 A. I cannot think of now. 14 But slippery solids like a Teflon, is 15 slippery solid, but it cannot be used as a 16 lubricant. 17 Q. My question was: Can you have a 18 lubricant that is not a slippery solid? 19 A. Again, I cannot think of right now. 20 (Pause) 21 Q. Okay. 22 You mentioned in that list manganese 23 stearate. 24 Is magnesium stearate -- or would a 25 formulation POSA understand that magnesium</p>
Page 74	Page 76
<p>1 acid and hydrogenated vegetable oils. 2 Do you see that? 3 A. Yes. 4 Q. That's why I asked you if a 5 formulation POSA would understand that a 6 lubricant is a slippery solid? 7 (Pause) 8 A. Yes. 9 It said: Slippery solids such as a 10 talc, magnesium and calcium stearate, stearic 11 acid, and hydrogenated vegetable oils, yes. 12 Q. So are -- would a formulation POSA 13 understand that lubricants are always slippery 14 solids? 15 (Pause) 16 A. In the beginning when you receive the 17 material, they are solid. But you use a certain 18 small quantity of it to use it as a lubricant. 19 (Pause) 20 Q. I was focused more on the "slippery," 21 but that's okay. 22 Are lubricant -- would a formulation 23 POSA understand that lubricants are always 24 slippery, whether they are solids or in another 25 form?</p>	<p>1 stearate is a lubricant? 2 A. Yes. 3 Q. What if a formulation was made up of 4 50% active ingredient and 50% magnesium 5 stearate? 6 Would the magnesium stearate still be 7 a lubricant? 8 MR. JAGOE: Objection to form, 9 incomplete hypothetical. 10 A. First of all, I'm not sure why anybody 11 want to make such a formulation. 12 And I don't think that that's a 13 reasonable formulation in this right now, 14 without any specific goals you can tell me. 15 Q. I agree it's not a reasonable 16 formulation. I think I know why. 17 Is it because there is too much 18 magnesium stearate in the formulation at that 19 point? 20 MR. JAGOE: Objection to form. 21 A. Again, this is hypothetical. Unless 22 you give me specific example and why you make it 23 for the goal you have, then I can tell you. But 24 otherwise, it's just too hypothetical. 25 Q. Is there a concern that's well known</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 77	Page 79
<p>1 to formulation POSAs about adding too much 2 magnesium stearate to a formulation? 3 A. Yes. That is known. Because if you 4 add too much magnesium stearate -- for example, 5 more than 1%, 2% -- then whole tablet may become 6 too hydrophobic, so they may not resorb in 7 water. So tablet may not even disintegrate. 8 (Pause) 9 Q. Earlier you said -- and please correct 10 me if I'm wrong -- that a capsule formulation 11 you may not need a lubricant. 12 Is that right? 13 A. Yes. 14 Q. Why in your opinion is that the case? 15 A. Sometimes capsule filling is such that 16 in pouring in the powders and swipe them to fill 17 the underneath capsule -- half of the capsule -- 18 as long as powder flows well, you don't need a 19 lubricant. 20 Q. Can you turn to Park 2, paragraph 22, 21 which spans from page 7 to 8? 22 (Pause) 23 A. Yes. 24 Q. I just want to confirm that the -- 25 that -- I guess, the sentence beginning on the</p>	<p>1 sweetening agent? 2 MR. JAGOE: Objection. 3 A. You asked me: What situation? 4 Q. Yes. 5 A. Well, again, if tablet or capsule is 6 designed to swallow, you don't need any 7 sweetening function. 8 But in my case, I made a formulation 9 that dissolve in the mouth, so I use it as a 10 sweetening agent. 11 Q. Okay. 12 In what situation could dextrose be 13 used as a diluent in a dissolvable tablet, but 14 not a sweetening agent? 15 A. If you -- the goal of a formulation 16 scientist to bulk up the total amount because 17 drug amount is so small, then you use glucose as 18 a diluent. That's the main function of glucose, 19 specifically used as a diluent. 20 (Pause) 21 Q. So the function of the excipient is 22 based on the formulator's goal? 23 A. Absolutely. 24 (Pause) 25 MR. CALVOSA: Want to take a quick</p>
Page 78	Page 80
<p>1 very last line of page 7 that begins with "A" 2 through the remainder of the paragraph -- that's 3 still your opinion? 4 (Pause) 5 A. Yes. 6 Q. If you could turn back to Park 3, that 7 was one of the earlier portions of the HPE I 8 gave you on dextrose. 9 A. Yes. 10 Q. Again I want to focus on page 222, 11 the: Functional Category. 12 A. Yes. 13 Q. At the beginning, it says that 14 dextrose can be a tablet and capsule diluent? 15 A. Yes. 16 Q. And I believe before you said that 17 "diluent" and "filler" are often used 18 interchangeably? 19 A. Yes. 20 Q. And a formulation POSA would 21 understand that, right? 22 A. Yes. 23 (Pause) 24 Q. In what situation could a -- could 25 dextrose be used as a tablet diluent but not a</p>	<p>1 break? Is that okay with you? 2 MR. JAGOE: Yeah. 3 THE VIDEOGRAPHER: The time now 11:44 4 a.m. and we are off the record. 5 * * * 6 L U N C H R E C E S S 7 * * * 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 81	Page 83
<p>1 * * *</p> <p>2 AFTERNOON SESSION</p> <p>3 * * *</p> <p>4 * * *</p> <p>5 (Exhibit Park 6, Multipage document</p> <p>6 bearing heading on first page: Exhibit 1,</p> <p>7 entitled: Curriculum Vita: Kinam Park, dated</p> <p>8 November, 2018 (no Bates Nos.), marked for</p> <p>9 identification)</p> <p>10 * * *</p> <p>11 THE VIDEOGRAPHER: This marks the</p> <p>12 beginning of tape No. 3. The time now is 12:32</p> <p>13 p.m. and we are back on the record.</p> <p>14 BY MR. CALVOSA:</p> <p>15 Q. Welcome back from lunch, Dr. Park.</p> <p>16 A. Thank you.</p> <p>17 MR. CALVOSA: I'm handing you what is</p> <p>18 marked as Park 6. And Park 6 was also Exhibit 1</p> <p>19 to your original declaration, which is Park 1.</p> <p>20 BY MR. CALVOSA:</p> <p>21 Q. Do you recognize Park 6, Dr. Park?</p> <p>22 A. It is my CV.</p> <p>23 Q. If you turn to the first page, there</p> <p>24 is no page number on that one.</p> <p>25 But at the top it's indicating -- or</p>	<p>1 Q. That's a book entitled: Oral</p> <p>2 Controlled Release Formulation Design and Drug</p> <p>3 Delivery: Theory to Practice?</p> <p>4 A. Yes.</p> <p>5 Q. And that was edited by yourself and</p> <p>6 Dr. Wen?</p> <p>7 A. Yes.</p> <p>8 Q. Is that book something a formulator</p> <p>9 would consider?</p> <p>10 A. I sincerely hope so.</p> <p>11 Q. Does that book, in your opinion,</p> <p>12 provide reliable information?</p> <p>13 A. Yes, I think so.</p> <p>14 (Pause)</p> <p>15 Q. Dr. Park, you do not hold a medical</p> <p>16 degree, correct?</p> <p>17 A. That's correct.</p> <p>18 Q. And you are not a medical doctor,</p> <p>19 right?</p> <p>20 A. Right.</p> <p>21 Q. You are not licensed to prescribe</p> <p>22 pharmaceuticals, right?</p> <p>23 A. Right.</p> <p>24 Q. And you do not administer</p> <p>25 pharmaceuticals to -- other than yourself --</p>
Page 82	Page 84
<p>1 at least it states the date of November, 2018?</p> <p>2 A. Yes.</p> <p>3 Q. So can I take that to mean that this</p> <p>4 CV was current as of November, 2018?</p> <p>5 A. Yes.</p> <p>6 Q. Has there been any significant</p> <p>7 additions that you would like to add here now?</p> <p>8 A. No, other than some more publications.</p> <p>9 Q. No new academic appointments on page</p> <p>10 1?</p> <p>11 A. No.</p> <p>12 Q. What about any new degrees for</p> <p>13 education?</p> <p>14 A. No.</p> <p>15 Q. If you turn to page 5 of Park 6, there</p> <p>16 is a section entitled: Books.</p> <p>17 Do you see that?</p> <p>18 A. Yes.</p> <p>19 Q. There is 12 books listed. I would</p> <p>20 like you to look at the one with the No. 9 in</p> <p>21 front of it.</p> <p>22 A. Yes.</p> <p>23 Q. How do you pronounce the other</p> <p>24 author's name?</p> <p>25 A. Wen.</p>	<p>1 patients, right?</p> <p>2 A. Right.</p> <p>3 Q. Do you consider yourself a specialist</p> <p>4 in oncology?</p> <p>5 A. I'm not sure what you mean by</p> <p>6 "specialist" in that particular case. But I</p> <p>7 have been studying formulation on cancer drug</p> <p>8 delivery systems.</p> <p>9 Q. That's fair.</p> <p>10 Do you consider yourself an expert in</p> <p>11 the field of treating cancerous conditions?</p> <p>12 A. In the sense that developing a</p> <p>13 formulation for treating cancer, I am expert;</p> <p>14 but not treating with dealing with a patient</p> <p>15 themselves.</p> <p>16 Q. Have you ever developed a</p> <p>17 pharmaceutical for the treatment of multiple</p> <p>18 myeloma?</p> <p>19 A. Not that particular cancer.</p> <p>20 But I have made several formulations</p> <p>21 to treat cancers --</p> <p>22 Q. Okay --</p> <p>23 A. -- in general.</p> <p>24 Q. Sorry for interrupting you.</p> <p>25 Nothing -- you have not developed any</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 85	Page 87
<p>1 formulation for the treatment of multiple 2 myeloma specifically. 3 Is that fair? 4 (Pause) 5 A. Depending on the clinician, they may 6 use a certain drug that I used. So I'm not sure 7 whether I can say exclusively that it was not 8 related. 9 Q. To your knowledge, no drug product you 10 have developed has been used for the treatment 11 of multiple myeloma? 12 A. No. 13 Q. By "no," you are agreeing that I was 14 correct, right? 15 A. Yes. 16 Q. What is multiple myeloma? 17 MR. JAGOE: That's outside the scope 18 of the declaration. 19 So you can answer, but not on behalf 20 of defendants. 21 A. One of the cancers. 22 Q. Okay. 23 But how do you tell if a patient has 24 multiple myeloma? 25 A. Did I say anything about that in my</p>	<p>1 MR. JAGOE: He's answering for Teva 2 for the scope of his declaration in the Markman 3 proceeding. 4 And to the extent you ask him 5 questions outside of that, it's not on behalf of 6 Teva. 7 And I drew a line for that last 8 question to tell you. 9 * * * 10 (Exhibit Park 7, Multipage document 11 bearing heading on first page: Exhibit 1, 12 entitled: United States Patent No.: US 8,198,262 13 B2, dated June 12, 2012 (no Bates Nos.), marked 14 for identification) 15 * * * 16 MR. CALVOSA: I have marked as Park 7 17 what is U.S. Patent 8,198,262. 18 THE WITNESS: Yes. 19 MR. CALVOSA: And it is also attached 20 as Exhibit 1 to my declaration of the open claim 21 construction brief. 22 BY MR. CALVOSA: 23 Q. Feel free to look at your report, but 24 this is one of the patents that you opined. 25 Is that right?</p>
Page 86	Page 88
<p>1 report? 2 Q. I'm just asking if you know. We can 3 look at your report in a second. We will. And 4 we'll go to your report. 5 I'm just asking if you can tell if a 6 patient has multiple myeloma? 7 A. Do I know how a patient has multiple 8 myeloma? 9 Q. Do you know how to tell if a patient 10 has multiple myeloma? 11 A. I guess one has to do some lab test. 12 Q. Okay. 13 MR. CALVOSA: And just to be clear, 14 he is -- this witness -- all of his answers are 15 on behalf of Teva. 16 MR. JAGOE: No. 17 MR. CALVOSA: You could object as 18 outside the scope, but all of his answers are on 19 behalf of Teva -- and I understand Mylan and 20 everybody, except Apotex and possibly 21 Breckenridge as well. 22 MR. JAGOE: Well, I disagree. And 23 since you explained your position I'll explain 24 mine. 25 MR. CALVOSA: Go on.</p>	<p>1 A. Yes. 2 Q. Did you read this patent? 3 A. Yes. 4 Q. Did you understand everything in the 5 patent when you read it? 6 A. I understand to the extent that I 7 wrote the report. 8 Q. So there are some portions of this 9 patent that you understand; some portions that 10 you don't understand. 11 Is that fair? 12 A. No, I didn't say I did not understand. 13 I just read the portions relevant to 14 my report. 15 Q. Didn't you want to read the entire 16 patent before writing your report? 17 A. "Entire" means word-by-word from very 18 beginning until the end? 19 Q. Yes. 20 A. I read most of the text and claims. 21 But I don't think I read all these references, 22 word-by-word. 23 Q. Okay. So let's start on column 1. 24 Did you read from column 1 through the 25 claims in its entirety?</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 89	Page 91
<p>1 A. That's most of it. 2 Q. So the answer is no, then, right? 3 A. That's not what I said. Again, I 4 didn't say -- I didn't read word-by-word, but I 5 read most of it. 6 Q. Okay. 7 And you understood everything you 8 read. 9 Is that right? 10 A. Yes. 11 (Pause) 12 Q. Can you look at column 4? 13 A. Yes. 14 Q. About line 21, it says: Brief 15 Description of the Figure? 16 A. Yes. 17 Q. Did you read that from lines 21 18 through line 30 -- the brief description of the 19 figure? 20 (Pause) 21 A. Yes. 22 Q. And you understood that? 23 (Pause) 24 A. Yes. 25 Q. Can you explain to me what the Hs</p>	<p>1 for testing different drugs. 2 Q. How many? 3 MR. JAGOE: Outside the scope. 4 A. Again, I don't know how many exactly 5 there are. 6 Q. When you say "many," what do you mean? 7 A. "Many" means plural. There are more 8 than a dozen. Exactly I don't know how many, 9 but it's not one. 10 Q. Did you say "dozen" or "thousand"? 11 I'm sorry. I didn't hear you. 12 A. I don't know the exact number. 13 I said: More than a dozen. That's 14 many. 15 Q. But you are certain that the Hs Sultan 16 cell line is an MM cell line? 17 MR. JAGOE: Objection to form. 18 A. That's what it says here: MM cell 19 lines, Sultan. So I have no reason not to 20 believe it. 21 Q. Would a formulation POSA understand 22 that the Hs Sultan is an MM cell line? 23 A. Formulation scientist will focus on 24 formulation, not particular cell lines. 25 Also, this is not what I mentioned in</p>
Page 90	Page 92
<p>1 Sultan MM cell line is? 2 MR. JAGOE: Outside the scope, 3 objection. 4 (Pause) 5 A. I think this is one of the -- our 6 cancer cell lines. 7 Q. What do you mean -- "our cancer cell 8 lines"? 9 MR. JAGOE: That's not what he said. 10 BY MR. CALVOSA: 11 Q. It says: I think it's one of our 12 cancer cell lines. 13 I asked: What do you mean -- "our 14 cancer cell lines"? 15 A. One of the cancer cell lines. 16 Q. Ah. 17 And what are the cancer cell lines? 18 A. So you are asking me general 19 questions? 20 Q. Yes. 21 A. What are not in my reports? 22 Q. I'm following up. 23 You said you read this patent, you 24 understood it. 25 A. There are many cancer cells available</p>	<p>1 my report. 2 Q. Well, you said you read it all and you 3 understand it. And you are offering an opinion 4 on it, so I'm trying to understand -- 5 MR. JAGOE: He's not offering an 6 opinion on cell lines. 7 MR. CALVOSA: He's offering an opinion 8 on the patent. 9 You got to read the whole 10 specification, don't you? 11 You have been educating me on the law 12 all day. 13 MR. JAGOE: You want to talk about it, 14 or not? 15 MR. CALVOSA: Yeah, okay. 16 MR. JAGOE: Okay. Let's talk about 17 it. 18 He's offering an opinion about what's 19 in his two declarations. He cited parts of the 20 patent that he's relying on in his declaration, 21 and that's what he's relying on. 22 And this is not cited in his 23 declaration, and he's not being called as an 24 expert on multiple myeloma cell lines. 25 MR. CALVOSA: So it's your position</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 93	Page 95
<p>1 that he did not consider the patent in whole?</p> <p>2 MR. JAGOE: I didn't say that.</p> <p>3 I said what he's relying on --</p> <p>4 MR. CALVOSA: Is it your position that</p> <p>5 he considered the patent in whole?</p> <p>6 MR. JAGOE: You have his testimony.</p> <p>7 He said he did.</p> <p>8 I don't have to take a position on a</p> <p>9 fact.</p> <p>10 MR. CALVOSA: Yes, you guys are funny.</p> <p>11 All right.</p> <p>12 BY MR. CALVOSA:</p> <p>13 Q. What were the -- and we'll get back to</p> <p>14 the cell lines in just a second.</p> <p>15 (Pause)</p> <p>16 Q. What type of problems were encountered</p> <p>17 in the art for multiple myeloma in 2002?</p> <p>18 A. I come here today to talk about my</p> <p>19 reports. That was not in my report.</p> <p>20 Q. Okay. Fair enough.</p> <p>21 And it's not in your report or -- let</p> <p>22 me ask you another question.</p> <p>23 Have you considered in forming the</p> <p>24 opinions in your report what type of problems</p> <p>25 were encountered in the art for multiple myeloma</p>	<p>1 So in this case, person of ordinary</p> <p>2 skill in the art may include formulation</p> <p>3 scientists as well as clinicians, and they may</p> <p>4 work as a team.</p> <p>5 Q. Okay.</p> <p>6 How did you come up with the idea that</p> <p>7 the clinician or medical oncologist would need</p> <p>8 several years of experience in cancer research,</p> <p>9 for example?</p> <p>10 A. To really build up expertise in</p> <p>11 medical oncology, after finishing medical</p> <p>12 school, you need to go through intern resident</p> <p>13 and build up the expertise. So I thought that</p> <p>14 several years would be a proper time period.</p> <p>15 Q. How many years is "several"?</p> <p>16 A. When I mean several, it is like five</p> <p>17 to six, or around that number.</p> <p>18 Q. Okay.</p> <p>19 What do you mean by "cancer research"</p> <p>20 when you say that?</p> <p>21 A. Cancer research include understanding</p> <p>22 why cancer is caused, or what kind of drug can</p> <p>23 be used, or depending on cancer type, which drug</p> <p>24 may be useful. Depending on patient, some drug</p> <p>25 may be beneficial more than others, etc.</p>
Page 94	Page 96
<p>1 in 2002?</p> <p>2 (Pause)</p> <p>3 A. What type of problems were there 2002?</p> <p>4 I was only considering that claim</p> <p>5 construction of about 1 milligram to about 5</p> <p>6 milligram, etc. So that's what I'm here to</p> <p>7 testify.</p> <p>8 Q. Let's look at paragraph 18 of Park 1.</p> <p>9 (Pause)</p> <p>10 Q. It talks about the method of treatment</p> <p>11 patents.</p> <p>12 Do you see that?</p> <p>13 A. Yes.</p> <p>14 Q. You understand the '262 patent is one</p> <p>15 of the method of treatment patents, right?</p> <p>16 A. Yes.</p> <p>17 Q. How did you come up with your person</p> <p>18 of ordinary skill for the method of treatment</p> <p>19 patents?</p> <p>20 MR. JAGOE: Don't disclose any</p> <p>21 conversations with counsel -- the substance of</p> <p>22 any conversations with counsel.</p> <p>23 A. Method of treatment requires</p> <p>24 development of a formulation that clinicians can</p> <p>25 use.</p>	<p>1 Q. Okay.</p> <p>2 How is it determined whether a drug</p> <p>3 can be used for the cancer type?</p> <p>4 A. Depending on the type of cancer, there</p> <p>5 are certain drugs known to be useful, but same</p> <p>6 drug may not work for all patients. So you have</p> <p>7 to choose the right drug for the right patient.</p> <p>8 Q. Will the same drug work for all types</p> <p>9 of cancer?</p> <p>10 MR. JAGOE: Objection to form, outside</p> <p>11 the scope.</p> <p>12 A. Again, that's not in my report. But</p> <p>13 you may be asking general questions.</p> <p>14 And the question was whether one drug</p> <p>15 works for all types of cancer?</p> <p>16 Q. That's right, yeah.</p> <p>17 A. I don't think so.</p> <p>18 Q. And when you mean "cancer research,"</p> <p>19 do you mean "laboratory work"?</p> <p>20 A. No, it can be a laboratory as well as</p> <p>21 a clinical settings.</p> <p>22 Q. What type of clinical settings are you</p> <p>23 thinking of?</p> <p>24 A. You need to try a certain drug in the</p> <p>25 cancer patient and see whether it works or not.</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 97	Page 99
<p>1 Sometimes there is clinical trials. 2 (Pause) 3 Q. So to see whether the cancer drug 4 works, you need to try it in the patient and see 5 whether it works or not? 6 A. Yes. 7 (Pause) 8 Q. Can you turn to page 10 of Park 1? 9 (Pause) 10 Q. And you talk here -- and it goes on to 11 page, I guess the top of page 13 -- about the 12 '427 patent file history? 13 A. Yes. 14 Q. Did you review the entire '427 file 15 history? 16 A. Again, I'm not sure what you mean 17 "entire." 18 But I did not read the -- word-by-word 19 the whole patent history. 20 Q. Did you have the entire '427 patent 21 file history available to you? 22 Or were you given just certain 23 portions of it for your review? 24 A. No, I had the entire file history. 25 Q. I'd like you to look at paragraph 32.</p>	<p>1 (Pause) 2 A. Monohydrate belongs to solvate, too -- 3 so anything other than pomalidomide. 4 Q. What about residual solvents? 5 MR. JAGOE: Objection to form. 6 A. Residual solvents of solvate form? 7 Or what? 8 Q. Sure, of solvate form. 9 MR. JAGOE: Objection to form. 10 A. So question is whether solvate solvent 11 remains as a residuals in the drug? 12 Q. Yeah. 13 A. If it exists as impurities, then you 14 may have to clean up or remove it. 15 But at least in the patents I opined 16 on it, I was looking into salt form solvate, two 17 forms. 18 Q. So let me ask it another way. 19 If I have impurities, as you put it, 20 in my pomalidomide, is that 100% pure 21 pomalidomide? 22 MR. JAGOE: Objection to form. 23 (Pause) 24 A. I think 100% pomalidomide is 25 pomalidomide in base form.</p>
Page 98	Page 100
<p>1 (Pause) 2 A. Yes? 3 Q. In that last sentence, you say: For 4 example, the pomalidomide could be less than 5 100% pure or be in salt form, as long as the 6 amount of pomalidomide compound is equivalent to 7 [x] mgs of 100% percent pomalidomide. 8 Do you see that? 9 (Pause) 10 A. Yes. 11 Q. What do you mean when you say: Less 12 than 100% pure? 13 A. As I said here in this paragraph, if 14 pomalidomide is in a salt form, the weight of 15 salt is added, so pomalidomide will not be 100% 16 pure. 17 Q. So when you say "less than 100% pure," 18 you mean if a salt is present? 19 A. Salt or solvate -- solvent molecules. 20 If there are other molecule is present, 21 pomalidomide will not be 100% pure. 22 Q. What do you mean by: Other molecules 23 present? 24 A. Salt or solvate molecules. 25 Q. Anything else?</p>	<p>1 So when we talk about salt or solvate, 2 you have more than pomalidomide base. I think 3 that's what we are talking about. So 100% pure 4 means pomalidomide base. 5 Q. So 100% pure pomalidomide, as long as 6 it's the base, can include impurities? 7 MR. JAGOE: Objection to form. 8 Q. Minus the solvates and the salts, 9 right? 10 A. I'm not sure -- I don't know that 11 that's what I opined on it, but I'm not sure 12 your question has specific information. 13 So what kind of a solvate? What kind 14 of solvate impurity is how you make it. 15 I don't know. Again, that's not what 16 I opine in my report. So -- 17 Q. Okay. 18 So you don't have an opinion one way 19 or another whether, if I have an impurity in the 20 pomalidomide free base, that's 100% pure 21 pomalidomide? 22 A. Until I have more information and more 23 time, at this point, I don't have an opinion. 24 Q. Okay. 25 (Pause)</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 101	Page 103
<p>1 Q. When you say pomalidomide free base 2 and we could use the pomalidomide salt as the 3 other one, and I think you used specifically 4 pomalidomide hydrochloride as an example in your 5 declaration -- let's go look at that. That 6 might be easier. 7 (Pause) 8 Q. I'm looking at paragraph 43 of Park 1. 9 (Pause) 10 A. Yes. 11 Q. And here you are saying that the 12 molecular weight of the pomalidomide salt is 13 greater than the pomalidomide free base, right? 14 A. Right. 15 Q. And that makes sense -- right? -- 16 because there is a -- now the -- the counterion 17 has joined the molecule, if you will. 18 Is that accurate? 19 A. Pomalidomide salt is -- molecular 20 weight-wise -- higher than pomalidomide base 21 because of presence of salt. 22 Q. If I have pomalidomide, is it possible 23 to have a mixture of the pomalidomide base and 24 the pomalidomide salt? 25 Or is it just one or the other?</p>	<p>1 claim construction. 2 MR. JAGOE: I think you are trying to 3 get it for the other case you filed. 4 MR. CALVOSA: Trying to get it for 5 claim construction -- 6 MR. JAGOE: I think you're not -- 7 MR. CALVOSA: -- talks about hydrates. 8 MR. JAGOE: -- that's my objection. 9 If you want to debate it, we can. I 10 just made an objection. 11 MR. CALVOSA: Okay, go ahead. 12 MR. JAGOE: Try to use it in the other 13 case, I'll bring it up to the judge that I 14 objected to it. 15 MR. CALVOSA: Okay. 16 You have no objection to us using it 17 in the claim construction proceeding, correct? 18 MR. JAGOE: If you think it's somehow 19 relevant. I don't see why it's relevant in this 20 claim construction proceeding. 21 But -- I mean, I don't know how much 22 you want me to say, but I made my objection. 23 MR. CALVOSA: Okay. Back to the 24 question. 25</p>
Page 102	Page 104
<p>1 MR. JAGOE: Objection to form. 2 (Pause) 3 A. Well, it depends on condition. But 4 when you make a salt, you will probably make all 5 the salt form. 6 Q. And if I have a pomalidomide hydrate, 7 again, is it possible to have a portion that's a 8 free base and a portion that's a hydrate? 9 Or is it 100% of the pomalidomide 10 hydrate? 11 A. In a salt form, depending on pH and 12 other conditions, you -- it's not equilibrium. 13 But in hydrate, condition may be such 14 that you may have a hydrate form. 15 Q. So I may have. 16 And correct me if I'm wrong. 17 You mentioned equilibrium. So for the 18 hydrate, I may have portion of the pomalidomide 19 that's in the hydrate form and a portion that's 20 in the free base form. 21 Is that what you are saying? 22 MR. JAGOE: I object to the extent you 23 are trying to use this proceeding to get 24 evidence for another proceeding. 25 MR. CALVOSA: Trying to get it for</p>	<p>1 BY MR. CALVOSA: 2 Q. And correct me if I am wrong -- you 3 mentioned equilibrium in the previous answer 4 when you were talking about the salts and the 5 hydrate. 6 The way I understood what you were 7 saying was that it's possible, because of the 8 equilibrium, to have some of pomalidomide in the 9 hydrate form and some of the pomalidomide in the 10 free base form? 11 A. I didn't say for hydrate. That was 12 for salt form, which is a function of pH. 13 But, again, my report does not contain 14 it, so I would not opine on that particular 15 point. 16 Q. You have no opinion one way or another 17 whether the pomalidomide -- if it's with the 18 hydrate -- can be partially with the hydrate and 19 partially free base, versus 100% on the hydrate? 20 A. I have no opinion on that. 21 Q. And you have no opinion whether, if 22 the pomalidomide is with the salt, it could be a 23 portion of the pomalidomide salt and a portion 24 in the free base? 25 Or 100% of the pomalidomide salt?</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 105	Page 107
<p>1 A. At this point, I have no opinion.</p> <p>2 Q. And you have on neither of those</p> <p>3 offered any opinions in your declarations,</p> <p>4 right?</p> <p>5 A. That's what I said. I did not present</p> <p>6 any opinion on that.</p> <p>7 Q. Okay.</p> <p>8 * * *</p> <p>9 (Exhibit Park 8, Document Bates</p> <p>10 stamped DEFS_POM_00013788 through 13797,</p> <p>11 multipage document bearing heading on first</p> <p>12 page: Exhibit 7, entitled: Pharmaceutical</p> <p>13 Calculations, 13th Edition, marked for</p> <p>14 identification)</p> <p>15 * * *</p> <p>16 MR. CALVOSA: I have just marked as</p> <p>17 Park 8 what was Exhibit 7 to Dr. Park's original</p> <p>18 declaration, which is Park 1.</p> <p>19 THE WITNESS: Yes.</p> <p>20 BY MR. CALVOSA:</p> <p>21 Q. Do you recognize what I have marked as</p> <p>22 Park 8?</p> <p>23 A. Yes.</p> <p>24 Q. What is it?</p> <p>25 (Pause)</p>	<p>1 Q. Would you say that the calculations in</p> <p>2 Ansel 2010 are well-known calculations in the</p> <p>3 pharmaceutical industry?</p> <p>4 A. In terms of calculating amount of</p> <p>5 active ingredients in salt form or solvate, any</p> <p>6 person who has education like a POSA would</p> <p>7 understand.</p> <p>8 (Pause)</p> <p>9 Q. Do you understand whether the POSA is</p> <p>10 supposed to be evaluated -- claim</p> <p>11 construction -- at the time the claim invention</p> <p>12 was made -- for example, the priority date?</p> <p>13 A. Yes, that's what I did.</p> <p>14 Q. Okay.</p> <p>15 I would like to look on Ansel 2010,</p> <p>16 page 327?</p> <p>17 A. Sorry?</p> <p>18 Q. Ansel 2010 at page 327.</p> <p>19 A. Ansel -- I'm sorry, what page?</p> <p>20 Q. Sure, 327.</p> <p>21 A. 327. Yes.</p> <p>22 Q. I'm going to ask these questions for</p> <p>23 both of your POSAs -- the method POSA and the</p> <p>24 formulation POSA.</p> <p>25 And if it's the -- I'll consider, you</p>
Page 106	Page 108
<p>1 A. It is Ansel book on pharmaceutical</p> <p>2 calculations.</p> <p>3 (Pause)</p> <p>4 Q. I believe you refer to this Park 8 in</p> <p>5 Park 1 as "2010 Ansel." And I'm looking on page</p> <p>6 26 of Park 1, the very bottom.</p> <p>7 A. Yes.</p> <p>8 Q. Is it okay if I call Park 8 "Ansel</p> <p>9 2010"?</p> <p>10 A. Yes.</p> <p>11 Q. "2010 Ansel."</p> <p>12 Would the formulation POSA have been</p> <p>13 aware of Ansel's 2010?</p> <p>14 A. Yes.</p> <p>15 Q. What about the POSA for the method of</p> <p>16 treatment patents that you talk about in</p> <p>17 paragraph 18 of Park 1?</p> <p>18 Would that method POSA have been aware</p> <p>19 of Ansel 2010?</p> <p>20 A. They would, as I said, work with the</p> <p>21 other formulation expert team, so they may have</p> <p>22 informed them.</p> <p>23 Also, this calculation is really</p> <p>24 straightforward arithmetic calculation.</p> <p>25 (Pause)</p>	<p>1 know, if the method POSA would have been</p> <p>2 informed by the formulation POSA, that's fine as</p> <p>3 well. But I'm asking whether each of them would</p> <p>4 have known this.</p> <p>5 A. Each of them what?</p> <p>6 Q. Each of the POSAs would have known</p> <p>7 this.</p> <p>8 So the section heading is: Active</p> <p>9 Drug Moiety Equivalents?</p> <p>10 A. Yes.</p> <p>11 Q. Would both of your POSAs have known</p> <p>12 that in pharmacotherapeutics, it is the</p> <p>13 pharmacologically active moiety of a drug</p> <p>14 compound that is responsible for the therapeutic</p> <p>15 response?</p> <p>16 A. That's what it says.</p> <p>17 The question is?</p> <p>18 Q. Would both of your POSAs been aware of</p> <p>19 that?</p> <p>20 A. Oh, I think so.</p> <p>21 Q. Would both of your POSAs have been</p> <p>22 aware of that to accommodate such diverse</p> <p>23 factors such as -- sorry.</p> <p>24 Let me start again so I don't mess it</p> <p>25 up.</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 109	Page 111
<p>1 Would both of your POSAs have been 2 aware of that -- to accommodate such diverse 3 factors as drug solubility, drug absorption, and 4 formulation/dosage form considerations, an 5 active drug moiety may be developed into a salt, 6 ester, or other complex chemical form? 7 A. So the question is: Those POSA would 8 understand? 9 Q. Would both of your POSAs have been 10 aware of that? 11 A. I think so. 12 Q. In the '262 patent and in all the 13 method of treatment patents, the active moiety 14 is pomalidomide, right? 15 (Pause) 16 A. Yes, pomalidomide, yes. 17 Q. And specifically, the free base of 18 pomalidomide, right? 19 A. Yes. 20 Q. I would like to turn to page 325 of 21 the same exhibit. 22 (Pause) 23 Q. I'm looking under the section heading: 24 Objectives. 25 A. Yes.</p>	<p>1 aware of that? -- yes. 2 A. Well, I think so. Certainly 3 formulation scientist will understand this. 4 Q. Under your definition of the method 5 POSA, they would be informed by the formulation 6 scientist, right? 7 A. I think so, yes. 8 * * * 9 (Exhibit Park 9, Multipage document 10 bearing heading on first page: Exhibit 8, 11 entitled: Pharmaceutical Calculations, 11th 12 Edition: 17: Calculation of Active Drug Moiety 13 (no Bates Nos.), marked for identification) 14 * * * 15 MR. CALVOSA: Marked as Park 9 what is 16 Exhibit 8 to Dr. Park's original declaration, 17 which is Park 1. 18 THE WITNESS: This is 11th edition? 19 MR. CALVOSA: I'm sorry? 20 THE WITNESS: This is 11th edition of 21 Pharmaceutical Calculations? 22 MR. CALVOSA: Are you asking me? 23 Or telling me? 24 THE WITNESS: No, no. It said 11th 25 Edition Pharmaceutical Calculations.</p>
Page 110	Page 112
<p>1 Q. Would both of your POSAs have been 2 aware that: A pharmacist must be able to 3 calculate the pharmacologically active drug 4 and -- in parenthesis -- (chemical) moiety when 5 present in salt, ester, hydrated, or complex 6 chemical form? 7 A. Yes. 8 Q. Would both of your POSAs have been 9 aware that: Such calculations are essential 10 when quantitatively comparing products of the same 11 drug moiety but differing in chemical form? 12 (Pause) 13 A. Yes. 14 Q. Would your -- both of your POSAs have 15 been aware that: These calculations are applied 16 in compounding procedures in which a different 17 form of a drug is used to satisfy formulation 18 requirements while the quantity of the 19 pharmacologically active drug moiety is 20 maintained at the desired therapeutic dose or 21 concentration? 22 (Pause) 23 A. The question is whether both POSAs 24 would understand that? 25 Q. Would both of the POSAs have been</p>	<p>1 Yes, this is what you gave me. 2 MR. CALVOSA: Yes. 3 BY MR. CALVOSA: 4 Q. And do you recognize Park 9? 5 A. Yes, but I'm trying to figure out why 6 there is -- my report is 13th edition. 7 (Pause) 8 Q. I think if you turn the page to page 9 27, this was Exhibit 8 to your report. 10 Or at least trying to confirm that it 11 was, and that is the 11th edition? 12 A. Okay. So I was -- yeah, you are 13 right, okay. This is what it is, yes. 14 Q. This is 2001 Ansel, right? 15 A. Yes. 16 Q. It's your opinion that both of your 17 POSAs would have been aware of 2001 Ansel, 18 right? 19 A. Certainly formulation scientist will 20 understand this particular book. 21 Q. And the formulation scientist in your 22 opinion would have informed the method POSA, 23 right? 24 A. If I asked, yes. 25 Q. What do you mean: If I asked?</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 113	Page 115
<p>1 A. No, no, if were asked --</p> <p>2 Q. Okay. Sorry.</p> <p>3 I'm happy to go through the quotes</p> <p>4 with you, but maybe it's better if you just</p> <p>5 review your report here.</p> <p>6 The information that's in Ansel 2001</p> <p>7 that I've marked as Park 9 is either verbatim or</p> <p>8 almost verbatim as the information in Park 8,</p> <p>9 right?</p> <p>10 (Pause)</p> <p>11 A. So what is your question?</p> <p>12 Q. I read Park 8 -- sorry.</p> <p>13 I read Park 9.</p> <p>14 And it seemed to provide the same</p> <p>15 information that was in --</p> <p>16 A. Which portion --</p> <p>17 Q. -- Park 8 --</p> <p>18 A. -- did you read?</p> <p>19 Q. The whole thing.</p> <p>20 Did you not?</p> <p>21 A. No, no, you said you read this one.</p> <p>22 You read the portion of Park 9.</p> <p>23 So which portion did you read?</p> <p>24 I may have misunderstood your</p> <p>25 question.</p>	<p>1 third example there about lidocaine?</p> <p>2 A. The last paragraph?</p> <p>3 Q. The last -- the last one there, yeah,</p> <p>4 at the bottom of the page.</p> <p>5 A. Yes.</p> <p>6 Q. And here, when they want to use a</p> <p>7 solution of 300 mgs lidocaine to prepare that</p> <p>8 solution -- or I guess an equivalent of that</p> <p>9 solution would be 369 milligrams of lidocaine</p> <p>10 hydroxide, or -- let me ask the question again.</p> <p>11 In this example, it shows that, if the</p> <p>12 desired dose is 300 mgs of lidocaine, and if the</p> <p>13 pharmacist chooses to use lidocaine</p> <p>14 hydrochloride to prepare that 300 mg dose, they</p> <p>15 have to use 369 mgs of lidocaine hydrochloride.</p> <p>16 Right?</p> <p>17 A. That's the calculation.</p> <p>18 Q. And why is that calculation done?</p> <p>19 (Pause)</p> <p>20 A. Because it was a lidocaine salt form.</p> <p>21 (Pause)</p> <p>22 Q. And they wanted to keep the amount of</p> <p>23 the active moiety constant, right?</p> <p>24 MR. JAGOE: Objection to form.</p> <p>25 A. I'm not sure constant, but the desired</p>
Page 114	Page 116
<p>1 Q. Okay. Let's just ask the questions --</p> <p>2 A. Okay.</p> <p>3 Q. -- it's easier.</p> <p>4 (Pause)</p> <p>5 Q. I'm looking at page 255 of Park 9.</p> <p>6 A. Yes.</p> <p>7 Q. And specifically the section that</p> <p>8 says: Active Drug Moiety Equivalence?</p> <p>9 A. Yes.</p> <p>10 Q. If you look at Park 8, that same</p> <p>11 section on page 327, the first two paragraphs,</p> <p>12 does that provide the same information?</p> <p>13 A. Yes.</p> <p>14 Q. And if you look at Park 9 on page 253</p> <p>15 and Park 8 on page 325 -- the first paragraph on</p> <p>16 page 253 of Park 9 -- does that provide the same</p> <p>17 information as the paragraph that begins "A</p> <p>18 pharmacist must" on page 325 of Park 8?</p> <p>19 (Pause)</p> <p>20 A. Yeah.</p> <p>21 Q. If we go to Park 8, page 328, I'm</p> <p>22 looking at the: Example Calculations of Active</p> <p>23 Drug Moiety Equivalence?</p> <p>24 A. Yes.</p> <p>25 Q. And I'm specifically looking at the</p>	<p>1 amount.</p> <p>2 Q. Okay.</p> <p>3 They wanted to achieve the desired</p> <p>4 amount of 300 mgs of the lidocaine active</p> <p>5 moiety, right?</p> <p>6 A. Yes.</p> <p>7 Q. And to do that, you have to use more</p> <p>8 of the lidocaine hydrochloride, because it's in</p> <p>9 the salt form, right?</p> <p>10 A. Yeah, you need a higher amount because</p> <p>11 a salt weight is added, yes.</p> <p>12 (Pause)</p> <p>13 MR. JAGOE: Do you need a break,</p> <p>14 Doctor?</p> <p>15 THE WITNESS: Yeah.</p> <p>16 THE VIDEOGRAPHER: The time now is</p> <p>17 1:32 p.m. and we are off the record.</p> <p>18 (Recess from 1:32 p.m. to 1:49 p.m.)</p> <p>19 THE VIDEOGRAPHER: This starts the</p> <p>20 beginning of tape No. 4. The time now is 1:49</p> <p>21 p.m. We are back on the record.</p> <p>22 BY MR. CALVOSA:</p> <p>23 Q. Welcome back, Dr. Park.</p> <p>24 A. Thank you.</p> <p>25 (Pause)</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 117	Page 119
<p>1 MR. CALVOSA: I'm going to hand 2 another exhibit. 3 (Pause) 4 MR. CALVOSA: Exhibit 9 -- that one is 5 marked Park 10, but Exhibit 9 to your opening 6 declaration, which was Park 1. 7 * * * 8 (Exhibit Park 10, Document Bates 9 stamped DEFS_POM_00013803 through 13816, 10 multipage document bearing heading on first 11 page: Exhibit 9, entitled: The United States 12 Pharmacopeia: The National Formulary, dated May 13 1, 2008, marked for identification) 14 * * * 15 MR. CALVOSA: It says "Exhibit 9" on 16 the front, but it was marked Park 10 for this 17 deposition. 18 THE WITNESS: Yeah. 19 (Pause) 20 BY MR. CALVOSA: 21 Q. I would like you to turn to page -- 22 well, I guess, first of all, do you recognize 23 what this is? 24 A. Yeah, USP National Formulary 2008 25 edition.</p>	<p>1 MR. JAGOE: Objection to form. 2 A. I cannot tell in general. 3 But usually, formulation scientists 4 develop formulation, but clinicians sometimes 5 develop formulation, too. 6 Q. Under your definition of the method 7 POSA, are they a formulator or a clinician? 8 A. For method treatment? 9 Q. Yes. 10 A. Again, as I said, this is a 11 combination of different expertise including 12 clinicians and formulation scientists. 13 (Pause) 14 Q. By the time the clinician gives the 15 pill to the patient, the pill is already made, 16 right? 17 MR. JAGOE: Objection to form. 18 A. Are you talking about clinical 19 settings? 20 Or can you be a little more specific? 21 Q. Sure, clinical setting. 22 A. So clinician is giving a pill to a 23 patient, then the formulation is already made 24 and approved by the FDA. 25 Q. Okay.</p>
Page 118	Page 120
<p>1 Q. You cited this as one of the exhibits 2 to your opening declaration -- Park 1 -- right? 3 A. I think so. 4 Q. Would both of your POSAs have been 5 aware of this USP? 6 A. Yes, in particular, formulation POSA. 7 Q. Maybe that's something we need 8 clarification on. 9 You said the formulation POSA could 10 assist the method POSA, right? 11 A. Well, as I said, a POSA could be a 12 team of scientists. So clinicians and 13 formulation scientists can be collectively a 14 POSA here. 15 Q. For your definitions of the POSA, 16 though, the formulation POSA is the one doing 17 the formulation of the drug product, right? 18 A. Yes, making formulations, yes. 19 Q. And then the method POSA is the one 20 who is giving the drug product to the patient, 21 right? 22 A. Using the formulation to treat the 23 patients, yes. 24 Q. So they -- the method POSA does not 25 make the formulation themselves, right?</p>	<p>1 A. I think you are not talking about 2 clinical trials where you don't need to have an 3 approval or in any experimental settings. 4 Q. I don't know if I would put that 5 qualification on. 6 Just what I'm trying to understand is: 7 By the time you get to the point where the 8 patient is putting the pill in his or her mouth, 9 the formulation has already been made. 10 A. Again, I cannot tell in general 11 because formulation development may occur during 12 the clinical trial. Sometime they can even 13 change after clinical Phase I study, too. 14 So I cannot tell in general whether 15 what you describe is true or not. 16 Q. Okay. Would be a little bit more 17 specific then. 18 By the time the patient is putting the 19 actual pill -- or the specific pill -- in his or 20 her mouth, that pill has already been 21 formulated, right? 22 A. Once anybody take a pill, you may 23 consider it is a formulated tablet, or capsule, 24 or whatever it is. 25 (Pause)</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 121	Page 123
<p>1 Q. Let's look at Park 10. 2 Would both of your POSAs have been 3 aware of Park 10? 4 A. Again, USP is usually for formulation 5 scientist. So some clinicians who are 6 interested in developing formulation, they may 7 be looking into USP. 8 Q. Let's look at page 627 of Park 10. 9 (Pause) 10 A. 627? Yes. 11 Q. I'd like to look at the section that 12 has the heading: Calculations in Compounding? 13 A. Yes. 14 Q. And specifically that last paragraph 15 in the left-hand column? 16 A. Yes. 17 Q. It says -- and correct me if I'm 18 wrong -- it's talking about situations where a 19 drug substance is either in a salt or complex? 20 A. Or an ion. 21 Q. Okay. 22 And in those situations, it said the 23 drug substance weighed -- a portion of it 24 represents the pharmacologically active moiety. 25 Is that right?</p>	<p>1 circumstances you are talking about. 2 But if instruction said just certain 3 amount which is not clear about exactly what it 4 has -- you know, pure drug active moiety or not, 5 you have to be -- you have to be clear about 6 what you are using, what you need to measure. 7 Q. I'm reading the last paragraph here 8 and maybe it's easier this way. 9 Would your POSA disagree with the 10 information provided in the last paragraph here 11 in the left-hand column of page 627? 12 A. I don't think POSA will disagree. 13 This is what I said in my report. To 14 calculate the active moiety itself, you have to 15 consider the percent of salt, etc. 16 (Pause) 17 MR. JAGOE: This exhibit you gave the 18 witness has handwriting. Is that the one you -- 19 MR. CALVOSA: That's the one I was 20 looking for. 21 MR. JAGOE: If you want to switch it 22 later or -- 23 (Pause) 24 MR. CALVOSA: Thank you for that. 25 BY MR. CALVOSA:</p>
Page 122	Page 124
<p>1 A. Yes, that is what it describes. 2 Q. Would your POSA have been aware that 3 when a formulation or -- sorry. 4 Would your POSA have been aware that 5 when a drug is in a salt or complex, that a 6 portion of that represents the pharmacologically 7 active moiety? 8 A. I'm sorry. I was not clear about your 9 question. Would you repeat? 10 Q. Sure. Let's break it down, just so it 11 is simpler. 12 If we have a drug in a salt form, both 13 of your POSAs would have been aware that a 14 portion of that salt form represents the 15 pharmacologically active moiety. 16 Is that right? 17 A. A special formulation POSA would 18 understand that. 19 Q. Your POSA would have been aware that, 20 if a compound is in a salt form, for example, it 21 must be weighed calculated on the basis of the 22 required quantity of the pharmacologically 23 active moiety, right? 24 A. I'm not sure whether it must. I don't 25 know -- I don't really know the specific</p>	<p>1 Q. For hydrates -- we just talked about 2 salts -- but it says earlier in this section -- 3 and I'm looking about halfway down the first 4 paragraph -- 5 A. First paragraph? 6 Q. Yeah. 7 It says: Calculations must account 8 for the active ingredient, or active, moiety and 9 water content of drug substances, which includes 10 that in the chemical formulas of hydrates. 11 (Pause) 12 A. Yeah -- when you calculate amount of 13 active moiety, you, of course, have to consider 14 inactive ingredient. 15 Q. And this is referring to an active 16 ingredient? 17 A. What refers to active ingredient? 18 Sentence? 19 Q. Maybe I misunderstood you. 20 The sentence there -- it says: 21 Calculations must account for the active 22 ingredient, or active moiety, and water content 23 of drug substances, which includes that in the 24 chemical formulas of hydrates. 25 And I'm asking: Would your POSA agree</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 125	Page 127
<p>1 with that statement?</p> <p>2 A. This POSA will agree, because that's</p> <p>3 what you need to calculate. That's what I</p> <p>4 mentioned in my report.</p> <p>5 Q. That's what you mention in your report</p> <p>6 where you say that --</p> <p>7 A. That's what I say in my report.</p> <p>8 Q. -- that if it's a hydrate, for</p> <p>9 example, you would need more of the hydrate to</p> <p>10 get the same amount of the free base?</p> <p>11 A. To calculate the amount -- certain</p> <p>12 amount of active ingredient, you have to</p> <p>13 calculate the total amount -- hydrate in this</p> <p>14 case.</p> <p>15 Then you have to subtract the amount</p> <p>16 from total weight.</p> <p>17 This is how we calculate amount of</p> <p>18 active ingredient from salt or hydrate.</p> <p>19 Q. So for a salt, you would subtract out</p> <p>20 the salt portion of it.</p> <p>21 Is that right?</p> <p>22 A. Again --</p> <p>23 Q. I'm trying to understand.</p> <p>24 So if you would like to put it in your</p> <p>25 own words, I'm just trying to understand what</p>	<p>1 Is that right?</p> <p>2 A. I think so. Yeah.</p> <p>3 (Pause)</p> <p>4 Q. Would both of your POSAs have been</p> <p>5 aware of Park 11?</p> <p>6 A. Again, formulation scientist would</p> <p>7 know USP.</p> <p>8 Q. I want to look at the last page that</p> <p>9 we have here, 2121.</p> <p>10 A. Yes.</p> <p>11 Q. On the left-hand column on the bottom,</p> <p>12 it says: Capsules, Powders, Lozenges, and</p> <p>13 Tablets?</p> <p>14 A. Yes.</p> <p>15 Q. Would your POSAs have been aware that</p> <p>16 when compounding capsules, for example, the</p> <p>17 pharmacist should prepare an amount of the total</p> <p>18 formulation sufficient to allow the prescribed</p> <p>19 amount or quantity to be accurately dispensed?</p> <p>20 A. I think it's too general to me.</p> <p>21 Could you make it a little more</p> <p>22 specific?</p> <p>23 Q. I'm reading a sentence from this</p> <p>24 document.</p> <p>25 I'm just asking if your POSA would</p>
Page 126	Page 128
<p>1 the opinion is.</p> <p>2 MR. JAGOE: Objection to form.</p> <p>3 A. So if a person or POSA is asked to</p> <p>4 calculate exact amount of active ingredient in a</p> <p>5 salt or hydrate, then they will have to consider</p> <p>6 the weight of salt or hydrate.</p> <p>7 Q. Okay.</p> <p>8 * * *</p> <p>9 (Exhibit Park 11, Multipage document</p> <p>10 bearing heading on first page: Exhibit 10,</p> <p>11 entitled: The United States Pharmacopeia: The</p> <p>12 National Formulary, dated January 1, 2000,</p> <p>13 marked for identification)</p> <p>14 * * *</p> <p>15 MR. CALVOSA: Marked as Park 11 what</p> <p>16 is Exhibit 10 to Dr. Park's original</p> <p>17 declaration, which is Park 1.</p> <p>18 (Pause)</p> <p>19 BY MR. CALVOSA:</p> <p>20 Q. Do you recognize this document, Dr.</p> <p>21 Park?</p> <p>22 A. The USP 24, NF 19, publication 2000.</p> <p>23 (Pause)</p> <p>24 Q. This was one of the exhibits attached</p> <p>25 to your original declaration, Park 1.</p>	<p>1 agree with that sentence.</p> <p>2 A. So tell me again which sentence you</p> <p>3 read?</p> <p>4 Q. Sure. The one that begins: When</p> <p>5 compounding these dosage forms.</p> <p>6 I did sub in "capsule" because it's</p> <p>7 one of the dosage forms, at least as I</p> <p>8 understand it, to be talking about.</p> <p>9 A. So compounding means pharmacist make</p> <p>10 formulation for a specific patient.</p> <p>11 So like the example we talked about,</p> <p>12 lidocaine -- if the question is deliver</p> <p>13 lidocaine 300 milligram, but it is a salt, you</p> <p>14 may have to consider how much total you have</p> <p>15 delivered.</p> <p>16 But simply saying "deliver lidocaine</p> <p>17 salt HCl 300 milligram," then pharmacist will</p> <p>18 compound 300 milligram of salt, resulting in</p> <p>19 less than 300 milligram lidocaine.</p> <p>20 Q. So if the pharmacist is aware that you</p> <p>21 are supposed to use 300 milligram lidocaine</p> <p>22 hydrochloride, they would compound 300 milligram</p> <p>23 lidocaine hydrochloride?</p> <p>24 A. If that's the instruction, then they</p> <p>25 will just use as instructed.</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

<p style="text-align: right;">Page 129</p> <p>1 Q. But if the instruction is "compound 2 300 milligrams lidocaine," and they are using 3 the lidocaine hydrochloride, they would compound 4 a higher amount, right? 5 A. Well, if the instruction said just 6 "use 300 milligram lidocaine hydrochloride," 7 then pharmacist will use 300 milligram lidocaine 8 hydrochloride. 9 Q. Got that. Different question. 10 If the instruction said "use 300 11 milligrams lidocaine," but the pharmacist used 12 lidocaine hydrochloride for the compounding, 13 they would have to use a higher amount of the 14 lidocaine hydrochloride, right? 15 A. If the instruction said "use 300 16 milligram pure lidocaine," then pharmacist will 17 consider calculating how much pure -- how much 18 salt form is necessary. 19 But before, the question was: If 20 instruction simply said deliver -- make a 21 formulation delivering lidocaine hydrochloride 22 300 milligram, then that will be 300 milligram, 23 including salt. 24 Q. I hear you. 25 My question was not about lidocaine</p>	<p style="text-align: right;">Page 131</p> <p>1 MR. JAGOE: Thanks. 2 THE VIDEOGRAPHER: The time is 2:11 3 p.m. We are off the record. 4 * * * 5 END OF PROCEEDING 6 Time noted 2:11 p.m. 7 * * * 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>
<p style="text-align: right;">Page 130</p> <p>1 hydrochloride. 2 And you added in there: Pure. 3 Is there a difference between if I 4 just say "lidocaine" on its own and "pure 5 lidocaine"? 6 A. Well, lidocaine -- depending on 7 situation, you need to clarify exactly whether 8 it is pure form or salt form, hydrate. So you 9 need to be specific how much each drug is 10 delivered. 11 Q. So unless I say "pure lidocaine," you 12 would understand lidocaine could possibly 13 include the salt or the hydrate. 14 Is that your testimony? 15 A. Yes, unless you specify pure 16 lidocaine. Simply saying "lidocaine," it comes 17 in different form, so that's possible. 18 MR. CALVOSA: Barring any questions 19 from my good friend over here, we have nothing 20 further. 21 MR. JAGOE: I have no questions. 22 MR. CALVOSA: Okay. Dr. Park, thank 23 you very much for your time. 24 THE WITNESS: Thanks very much. 25 MR. CALVOSA: We appreciate it.</p>	<p style="text-align: right;">Page 132</p> <p>1 CERTIFICATE 2 3 STATE OF NEW YORK 4 COUNTY OF NEW YORK 5 6 I, BRANDON RAINOFF, a Federal 7 Certified Realtime Reporter and Notary Public 8 within and for the State of New York, do hereby 9 certify: 10 That KINAM PARK, Ph.D., the witness 11 whose deposition is hereinbefore set forth, was 12 duly sworn by me and that such deposition is a 13 true record of the testimony given by the 14 witness. 15 I further certify that I am not 16 related to any of the parties to this action by 17 blood or marriage, and that I am in no way 18 interested in the outcome of this matter. 19 IN WITNESS WHEREOF, I have hereunto 20 set my hand this 7th day of June, 2019. 21 22 23 24 25</p> <p style="text-align: right;"><i>Jane Rose Reporting</i> BRANDON RAINOFF, FCRR, RMR, CRR</p>

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 133		Page 135	
1	INSTRUCTIONS FOR ERRATA	1	PAGE LINE CHANGE REASON
2		2	____/____/____/____
3		3	____/____/____/____
4	NOTARY PUBLIC SIGNATURE	4	____/____/____/____
5	Not required unless agreed upon by counsel	5	____/____/____/____
6	that notary public signature is required.	6	____/____/____/____
7		7	____/____/____/____
8		8	____/____/____/____
9		9	____/____/____/____
10	Please return a copy of the signed errata within	10	____/____/____/____
11	30 days of receipt, unless otherwise agreed upon	11	____/____/____/____
12	by counsel. Once we receive the signed errata, we	12	____/____/____/____
13	will distribute an electronic copy to all parties.	13	____/____/____/____
14		14	____/____/____/____
15		15	____/____/____/____
16	RETURN A SIGNED COPY VIA FAX, EMAIL OR MAIL TO:	16	____/____/____/____
17	FAX: 1-800-825-9055	17	____/____/____/____
18	EMAIL: janerose@janerosereporting.com	18	____/____/____/____
19		19	____/____/____/____
20	Jane Rose Reporting	20	____/____/____/____
21	Administrative Offices	21	____/____/____/____
22	309 South Main Street	22	____/____/____/____
23	P.O. Box 542	23	____/____/____/____
24	Luck, WI 54853	24	____/____/____/____
25		25	____/____/____/____
Page 134		Page 136	
1	NOTICE TO READ AND SIGN	1	INDEX OF EXHIBITS
2		2	
3	This transcript was electronically distributed	3	Exhibit Park 1Page 11
4	to KIRKLAND & ELLIS LLP to forward to witness.	4	Multipage document entitled: Declaration of Dr. Kinam
5		5	Park, Ph.D., dated November 15, 2018 (no Bates Nos.)
6		6	
7	ACKNOWLEDGMENT OF DEPONENT	7	Exhibit Park 2Page 11
8		8	Multipage document entitled: Supplemental Declaration
9	I, Kinam Park, Ph.D., do hereby	9	of Dr. Kinam Park, Ph.D., dated May 29, 2019 (no
10	certify that I have read the foregoing pages and that	10	Bates Nos.)
11	the same is a correct transcription of the	11	
12	answers given by me to the questions therein	12	Exhibit Park 3Page 39
13	propounded, except for the corrections or	13	Multipage document entitled: Handbook of
14	changes in form or substance, if any,	14	Pharmaceutical Excipients, Sixth edition: Dextrose
15	noted in the attached Errata Sheet.	15	(no Bates Nos.)
16		16	
17	_____	17	Exhibit Park 4Page 65
18	Date Kinam Park, Ph.D.	18	Multipage document entitled: Handbook of
19		19	Pharmaceutical Excipients, Sixth edition: Colloidal
20	Signed and subscribed to before me this	20	Silicon Dioxide (no Bates Nos.)
21	_____ day of _____, 2019.	21	
22		22	Exhibit Park 5Page 72
23	_____	23	Multipage document entitled: United States Patent
24	Notary Public	24	No.: US 6,960,617 B2, dated November 1, 2005 (no
25	My Commission expires: _____	25	Bates Nos.)

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

<p style="text-align: right;">Page 137</p> <p>1 Exhibit Park 6Page 81</p> <p>2 Multipage document bearing heading on first page:</p> <p>3 Exhibit 1, entitled: Curriculum Vita: Kinam Park,</p> <p>4 dated November, 2018 (no Bates Nos.)</p> <p>5</p> <p>6 Exhibit Park 7Page 87</p> <p>7 Multipage document bearing heading on first page:</p> <p>8 Exhibit 1, entitled: United States Patent No.: US</p> <p>9 8,198,262 B2, dated June 12, 2012 (no Bates Nos.)</p> <p>10</p> <p>11 Exhibit Park 8Page 105</p> <p>12 Document Bates stamped DEFS_POM_00013788 through</p> <p>13 13797, multipage document bearing heading on first</p> <p>14 page: Exhibit 7, entitled: Pharmaceutical</p> <p>15 Calculations, 13th Edition</p> <p>16</p> <p>17 Exhibit Park 9Page 111</p> <p>18 Multipage document bearing heading on first page:</p> <p>19 Exhibit 8, entitled: Pharmaceutical Calculations,</p> <p>20 11th Edition: 17: Calculation of Active Drug Moiety</p> <p>21 (no Bates Nos.)</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	
<p style="text-align: right;">Page 138</p> <p>1 Exhibit Park 10Page 117</p> <p>2 Document Bates stamped DEFS_POM_00013803 through</p> <p>3 13816, multipage document bearing heading on first</p> <p>4 page: Exhibit 9, entitled: The United States</p> <p>5 Pharmacopeia: The National Formulary, dated May 1,</p> <p>6 2008</p> <p>7</p> <p>8 Exhibit Park 11Page 126</p> <p>9 Multipage document bearing heading on first page:</p> <p>10 Exhibit 10, entitled: The United States Pharmacopeia:</p> <p>11 The National Formulary, dated January 1, 2000</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 134

NOTICE TO READ AND SIGN

This transcript was electronically distributed
to KIRKLAND & ELLIS LLP to forward to witness.

ACKNOWLEDGMENT OF DEPONENT

I, Kinam Park, Ph.D., do hereby
certify that I have read the foregoing pages and that
the same is a correct transcription of the
answers given by me to the questions therein
propounded, except for the corrections or
changes in form or substance, if any,
noted in the attached Errata Sheet.

June 26, 2019

Date

Kinam Park

Kinam Park, Ph.D.

Signed and subscribed to before me this

26 day of June, 2019.

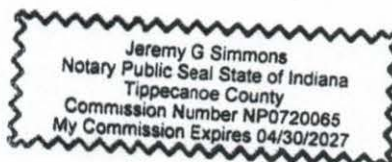
[Signature]

Notary Public

My Commission expires: 4/30/27

JANE ROSE REPORTING
1-800-825-3341

National Court-Reporting Coverage
janerose@janerosereporting.com



National Court-Reporting Coverage
janerose@janerosereporting.com

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 139

<p>A</p> <p>Abbreviated 16:11 able 51:2 68:18 110:2 absence 30:24 60:22 absolutely 56:16 57:13,23 79:23 absorb 55:14 57:17 absorption 109:3 abusing 33:19 academic 82:9 accommodate 108:22 109:2 account 124:7,21 accurate 101:18 accurately 127:19 achieve 116:3 acid 74:1,11 75:5 ACKNOWLEDGMENT 134:7 action 132:16 active 22:9,11,13,17 23:3 24:12,16,21 25:13 26:1,1 44:13 50:25 56:8 76:4 107:5 108:8,13 109:5,13 110:3,19 111:12 114:8,22 115:23 116:4 121:24 122:7,15,23 123:4 123:14 124:8,8,13 124:15,17,21,22 125:12,18 126:4 137:20 activity 23:2,8,17,22 23:25 24:2,4,6,9,13 24:15,17,18,19,22 25:2,12,20,23 26:2 actual 30:24,25 31:11 38:4 120:19 add 26:6 44:22 56:9 56:22 77:4 82:7 added 43:21 98:15 116:11 130:2 adding 77:1 additions 82:7 address 11:1 Adhesion 71:25 adhesions 55:17 administer 83:24 Administration 51:4 Administrative 133:21 agent 41:2,2,2,20,24 42:1,4,12,16,18,21 43:3,5,8 45:4,10,13 45:15 79:1,10,14 aggregate 59:14 ago 44:23 73:14</p>	<p>agree 25:21 63:7 76:15 124:25 125:2 128:1 agreed 133:5,11 agreeing 85:13 Ah 90:16 ahead 32:15 103:11 aid 59:3 al 9:10 allow 127:18 amount 45:9,11,13,15 56:8 79:16,17 98:6 107:4 115:22 116:1 116:4,10 123:3 124:12 125:10,11,12 125:13,15,17 126:4 127:17,19 129:4,13 ANDA 16:6,9,11,12,16 16:23,25 17:3 Ansel 106:1,5,8,11,19 107:2,15,18,19 112:14,17 113:6 Ansel's 106:13 answer 15:19,19,23 27:7 30:7,11,14,15 31:14,21,25 33:10 33:23 34:7 35:2 41:16 47:21 59:23 60:23 61:1,21 67:3 85:19 89:2 104:3 answered 30:9,17 31:10,19 32:2 answering 24:10 27:2 31:12 63:1 87:1 answers 86:14,18 134:12 anybody 13:20 50:23 76:10 120:22 anyway 55:18 Apotex 1:9,9 7:3,4 14:9,25 86:20 appearances 9:20 53:3 appeared 16:21 APPEARING 6:1 7:1 application 16:12,12 36:23 applications 21:18 35:13 applied 110:15 apply 19:13 applying 19:10,17,20 appointments 82:9 appreciate 130:25 approval 51:3 120:3 approved 119:24 area 50:22</p>	<p>arithmetic 106:24 arrive 47:16 art 48:11 50:15 52:8 93:17,25 95:2 Ashley 4:16 10:12 ashley.cade@kirkla... 4:19 aside 67:1 asked 24:3 26:3 31:10 31:11,19 33:25 68:1 74:4 79:3 90:13 112:24,25 113:1 126:3 asking 15:11 18:20,24 26:18 28:14,15 30:4 32:25 34:2 49:13 61:19,23 62:14 86:2 86:5 90:18 96:13 108:3 111:22 124:25 127:25 aspect 20:7 aspirin 24:18 assist 118:10 associated 16:15 attached 87:19 126:24 134:15 attorney 10:13 attorneys 2:4 3:4 4:4 5:4 6:3,16 7:3 14:15 Aurobindo 1:7,7 6:3,4 14:4,6 AUROLIFE 1:8 6:5 author's 82:24 available 90:25 97:21 Avenue 2:6 4:7 6:7 7:21 aware 47:19 106:13 106:18 108:18,22 109:2,10 110:2,9,15 111:1 112:17 118:5 121:3 122:2,4,13,19 127:5,15 128:20 a.m 9:5,12 53:13,14 53:14,17 63:6 64:8,8 64:10 80:4</p>	<p>104:10,19,24 109:17 125:10 based 29:13,23 30:13 30:19 36:18 47:7,11 79:22 basis 52:25 61:16,23 62:13 122:21 BATEMAN 6:23 Bates 11:10,15 39:21 65:14 72:18 81:8 87:13 105:9 111:13 117:8 136:5,10,15 136:20,25 137:4,9 137:12,21 138:2 bearing 81:6 87:11 105:11 111:10 117:10 126:10 137:2 137:7,13,18 138:3,9 beginning 25:25 53:16 74:16 77:25 78:13 81:12 88:18 116:20 begins 9:7 17:12 78:1 114:17 128:4 behalf 9:22 10:1,2,15 26:15 27:2 52:22 85:19 86:15,19 87:5 believe 46:16 78:16 91:20 106:4 belongs 99:2 beneficial 95:25 better 38:21 56:25 113:4 beyond 33:9 34:10,13 big 34:23 bigger 55:9,13,15,18 billions 61:4,9 bind 55:15 69:1 binder 36:4 37:5,6,9 56:15,18,22,23,24 68:13,19,21 69:1 binders 56:14 binding 55:16 bioactivity 26:2 bioengineering 19:7 biomedical 11:3 17:16 18:7,10,12,15,17,18 18:20,24 19:7,9,11 bit 45:2 120:16 bitter-tasting 43:21 blood 19:19 132:17 bmurray@taftlaw.c... 7:12 body 24:23 25:8 50:5 bold 40:19 bolded 66:3 book 34:23,25,25 83:1 83:8,11 106:1</p>	<p>112:20 books 82:16,19 BOONE 6:18 bottom 66:3 106:6 115:4 127:11 Box 133:23 Brad 9:16 Brandon 7:24 132:6 132:24 break 15:20,24 52:12 59:23 80:1 116:13 122:10 breaks 57:18 Breckenridge 1:11 6:16 14:11,15,22 86:21 Brian 2:13 7:10 9:24 brianforsatz@quinn... 2:15 brief 87:21 89:14,18 bring 53:2 103:13 build 95:10,13 bulk 56:10 79:16 business 11:1 buy 51:6 B2 72:18,23 87:13 136:24 137:9</p>
		<p>B</p> <p>B 136:1 back 53:17,19 59:17 63:12 64:10 78:6 81:13,15 93:13 103:23 116:21,23 background 17:11 Barring 130:18 base 99:25 100:2,4,6 100:20 101:1,13,20 101:23 102:8,20</p>		<p>C</p> <p>C 2:1,10 3:1 4:1,13 5:1 9:2 80:6,6 131:5 132:1,1 Cade 4:16 10:12 caffeine 43:21 44:15 44:16,17 45:12 calcium 73:25 74:10 75:4 calculate 110:3 123:14 124:12 125:3 125:11,13,17 126:4 calculated 122:21 calculating 107:4 129:17 calculation 106:23,24 111:12 115:17,18 137:20 calculations 105:13 106:2 107:1,2 110:9 110:15 111:11,21,25 114:22 121:12 124:7 124:21 137:15,19 California 5:10 call 19:8,19 23:3,22 24:7,14 26:7 27:12 106:8 called 17:23 18:5,11 19:6 22:23 54:25</p>

US District Court - New Jersey
Celgene v. Hetero LabsFINAL - June 7, 2019
Kinam Park, Ph.D.

Page 140

<p>56:10 57:19 67:13 92:23 Calvosa 1:21 2:10 8:8 9:21,21 10:6,21 11:5 11:18 13:8,13,19,21 19:2 30:18 32:4,10 32:13,17,20 33:2,3 33:10,13,16,21,23 34:4,8,11,15 39:16 39:24 40:6 52:11,14 53:8,10,18 61:19,24 62:2,6,8,12,16 63:3 63:9,12,18,22 64:3,6 64:11 65:16,23 72:13,21 73:1 79:25 81:14,17,20 86:13 86:17,25 87:16,19 87:22 90:10 92:7,15 92:25 93:4,10,12 102:25 103:4,7,11 103:15,23 104:1 105:16,20 111:15,19 111:22 112:2,3 116:22 117:1,4,15 117:20 123:19,24,25 126:15,19 130:18,22 130:25 cancer 50:3,8 84:7,13 84:19 90:6,7,12,14 90:15,17,25 95:8,19 95:21,22,23 96:3,4,9 96:15,18,25 97:3 cancerous 84:11 cancers 84:21 85:21 capsule 41:6,8,9 50:24 51:7 58:14 70:25 71:2,6 77:10 77:15,17,17 78:14 79:5 120:23 128:6 capsules 20:16 56:12 127:12,16 carbohydrate 39:5 carboxy 35:21 carboxymethyl 35:19 career 28:16 carrier 54:18,21,25 55:1,3,10 carriers 54:15 carries 55:9 carry 43:9 case 1:14 10:7 11:21 13:25 14:1 16:6,9 18:3 27:1 32:20 41:25 42:11 48:17 77:14 79:8 84:6 95:1 103:3,13 125:14 cases 16:2,4,14,16,23</p>	<p>17:1,3 Category 40:20 66:4 78:11 caused 95:22 Celgene 1:3 2:4 3:4 9:9,23 10:1,2 cell 50:9 90:1,6,7,12 90:14,15,17 91:16 91:16,18,22,24 92:6 92:24 93:14 cells 90:25 cellulose 35:19,22 certain 11:22 24:13 26:6 36:22,23 38:1 38:12 49:25 50:22 53:23 54:10 55:17 56:12 57:9 58:25 59:12 71:5 74:17 85:6 91:15 96:5,24 97:22 123:2 125:11 Certainly 111:2 112:19 Certificate 8:13 Certified 132:7 certify 132:9,15 134:10 change 120:13 135:1 changes 134:14 chapter 28:13 characterized 54:9 chemical 109:6 110:4 110:6,11 124:10,24 Chicago 3:7 7:8 choose 55:1 96:7 chooses 115:13 chosen 73:24 Christopher 4:10 10:9 christopher.jagoe@... 4:12 circumstances 123:1 cited 92:19,22 118:1 claim 12:20 87:20 94:4 103:1,5,17,20 107:10,11 claims 88:20,25 clarification 118:8 clarify 130:7 class 58:16 67:4 classification 55:21 clean 99:14 clear 31:5 42:13 55:12 56:2 70:9 86:13 122:8 123:3,5 clinical 96:21,22 97:1 119:18,21 120:2,12 120:13 clinician 85:5 95:7 119:7,14,22</p>	<p>clinicians 94:24 95:3 118:12 119:4,12 121:5 CMC 35:22,23,24,25 colleagues 10:12 collectively 118:13 colloidal 65:13,22 66:9,13,15,18,21 136:19 column 73:16 88:23 88:24 89:12 121:15 123:11 127:11 combination 119:11 combined 54:24 55:3 come 12:13 47:2 93:18 94:17 95:6 comes 18:1 25:13 50:6,7 130:16 coming 47:20,21 48:23 Commission 134:25 common 36:10 commonly 35:10,16 communications 47:5 compact 71:5 companies 16:13,19 company 17:5 comparing 110:10 complex 109:6 110:5 121:19 122:5 compound 17:7 28:2 98:6 108:14 122:20 128:18,22 129:1,3 compounding 110:16 121:12 127:16 128:5 128:9 129:12 comprehensive 20:19 compress 58:2 compressing 60:1 compression 60:8,19 64:13 concentration 19:18 110:21 concern 76:25 concerning 11:22 12:20 condition 102:3,13 conditions 21:7 84:11 102:12 confidential 41:15 confirm 43:3,4,10 46:9 77:24 112:10 consider 47:15,23 48:22 49:7,8,15,17 66:21 83:9 84:3,10 93:1 107:25 120:23 123:15 124:13 126:5</p>	<p>128:14 129:17 consideration 49:20 considerations 109:4 considered 48:10 49:13 66:23 93:5,23 considering 94:4 CONSOLIDATED 1:15 constant 115:23,25 construction 87:21 94:5 103:1,5,17,20 107:11 contain 104:13 containing 43:21 content 124:9,22 CONTENTS 8:1 continually 53:1 continued 3:1 4:1 5:1 7:1 Controlled 83:2 conversations 94:21 94:22 copy 1:24 28:7,12 30:5,10 133:10,13 133:16 CORP 1:10 7:4 Corporation 1:3 2:4 3:4 9:9 correct 12:14 65:21 77:9 83:16,17 85:14 102:16 103:17 104:2 121:17 134:11 corrections 134:13 counsel 9:19 13:5 15:12 47:5 62:8 94:21,22 133:5,12 counterion 101:16 COUNTY 132:4 couple 20:10 course 43:13 53:8 124:13 court 1:1 7:24 9:16 29:5 62:18 courtesy 63:14 courtroom 61:8,12,13 crazy 62:9 CRR 132:24 curious 18:22 current 82:4 currently 17:14 Curriculum 81:7 137:3 CV 81:22 82:4</p>	<p>81:7 87:13 117:12 126:12 136:5,9,24 137:4,9 138:5,11 day 3:5 10:2 15:10 61:5,10 92:12 132:20 134:21 days 133:11 dealing 84:14 deals 19:15 debate 103:9 decide 36:12,22 decides 36:25 37:4,11 declaration 11:9,14,21 12:7,10,18,19 13:2 18:8 26:13 59:20 81:19 85:18 87:2,20 92:20,23 101:5 105:18 111:16 117:6 118:2 126:17,25 136:4,8 declarations 92:19 105:3 DEFENDANT 4:4 6:16 defendants 1:13 5:4 6:3 7:3 10:16 13:17 13:23 52:23,23 85:20 define 36:15 46:16 defined 36:18 definition 45:20 46:1,5 46:10,11 47:3,11,13 47:17,22 48:24 51:17 64:20 111:4 119:6 definitions 118:15 DEFS_POM_000137... 105:10 137:12 DEFS_POM_000138... 117:9 138:2 degree 47:9 50:19,20 51:16 83:16 degrees 82:12 deliver 44:5 50:4 128:12,16 129:20 delivered 128:15 130:10 delivering 129:21 delivery 19:21 20:16 20:18,20 35:8,12 83:3 84:8 department 17:17 18:11,19 19:6,23,24 depending 19:8 36:14 44:4 45:4 54:25 60:14 71:6 85:5 95:23,24 96:4 102:11 130:6</p>
--	--	---	--	---

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 141

<p>depends 36:5,7 102:3 DEPONENT 134:7 deposed 15:4 16:1 deposition 1:17 9:8,13 12:11 14:17 117:17 132:11,12 depositions 16:22 describe 120:15 described 51:22 describes 122:1 description 89:15,18 design 19:20 83:2 designed 21:13 79:6 desired 110:20 115:12 115:25 116:3 detailed 60:22 details 61:1 62:25 determine 37:24 38:6 41:22 determined 42:3 96:2 determining 48:10 develop 19:21 47:10 119:4,5 developed 21:15 84:16,25 85:10 109:5 developing 21:17 84:12 121:6 development 20:2,8 20:12 21:6,10 94:24 120:11 dextrose 39:4,9,11,21 39:25 40:19,23 41:10,18,23 42:8,16 43:22 44:9,13,22 78:8,14,25 79:12 136:14 die 61:15 62:20 dies 58:4 60:3 difference 19:5 25:23 130:3 different 19:16 20:4,7 20:18,20 21:24 22:2 27:15 37:17 38:14 46:20 48:12 59:15 60:25 69:3,5,9,17,19 71:24 91:1 110:16 119:11 129:9 130:17 differing 110:11 difficult 55:8 56:9 60:23 diluent 36:1 41:1,6,8,8 41:9 55:22,24 56:3,6 56:10 57:8 78:14,17 78:25 79:13,18,19 diluents 56:7 dioxide 65:13,22 66:9</p>	<p>66:13,15,19,22 136:20 direct 50:8 disagree 86:22 123:9 123:12 discipline 19:11 disciplines 19:16 disclose 41:13 47:4 94:20 discussed 60:20 disintegrant 37:11,13 57:12,15,19 disintegrants 57:10 57:16 disintegrate 77:7 dispensed 127:19 dissolvable 79:13 dissolve 58:24 59:1 79:9 dissolving 35:9 59:3 distinction 25:12 distinguished 17:15 17:21,24 18:1,5,15 distribute 133:13 distributed 134:3 DISTRICT 1:1,2 diverse 108:22 109:2 doctor 62:22 83:18 116:14 document 11:8,13 39:19 65:11 72:16 81:5 87:10 105:9,11 111:9 117:8,10 126:9,20 127:24 136:4,8,13,18,23 137:2,7,12,13,18 138:2,3,9 documents 62:24 doing 29:6 51:13 57:18 118:16 dosage 128:5,7 dose 110:20 115:12 115:14 dozen 91:8,10,13 Dr 7:16 9:8 10:22 11:9 11:14 12:18 13:18 13:22 26:14 28:24 34:16 53:19 62:17 64:12 81:15,21 83:6 83:15 105:17 111:16 116:23 126:16,20 130:22 136:4,9 drawing 25:11 drew 87:7 drug 16:12,15,18 19:21 20:7,15,18,20 22:11,18,23 24:11</p>	<p>24:13,13,14 35:8,12 51:4 54:22,22,25 55:4,7,10,15 56:8 58:25 59:3 79:17 83:2 84:7 85:6,9 95:22,23,24 96:2,6,7 96:8,14,24 97:3 99:11 108:9,13 109:3,3,5 110:3,11 110:17,19 111:12 114:8,23 118:17,20 121:19,23 122:5,12 123:4 124:9,23 130:9 137:20 drugs 1:6 20:4,4,5,5 50:5 58:25 91:1 96:5 duly 10:18 132:12 D.C 6:21</p> <hr/> <p style="text-align: center;">E</p> <hr/> <p>E 2:1,1 3:1,1 4:1,1 5:1 5:1 9:2,2 80:6,6 81:2 81:2 131:5,5,5 132:1 132:1 136:1,1 earlier 77:9 78:7 124:2 easier 56:11,20 101:6 114:3 123:8 easily 59:2 East 7:6 edited 83:5 edition 39:21 40:2 65:13,21 105:13 111:12,18,20,25 112:6,11 117:25 136:14,19 137:15,20 educating 92:11 education 50:19 82:13 107:6 effect 24:23,25 50:6 effective 51:9 either 31:2 113:7 121:19 eject 72:3 electronic 133:13 electronically 134:3 Ellis 4:6 7:17 9:14 10:10 134:4 EMAIL 133:16,18 Emanuel 1:22 2:5 9:22 9:25 encountered 93:16,25 endowment 18:2,4 engaged 62:11 engineering 11:3 17:16 18:7,10,12,16 18:17,18,21,25 19:7 19:10,10,13,20</p>	<p>entire 88:15,17 97:14 97:17,20,24 entirety 88:25 entitled 11:9,14 39:20 65:12 72:17 81:7 82:16 83:1 87:12 105:12 111:11 117:11 126:11 136:4 136:8,13,18,23 137:3,8,14,19 138:4 138:10 entrapment 55:18 entry 39:25 40:8 equilibrium 102:12,17 104:3,8 Equivalence 114:8,23 equivalent 98:6 115:8 Equivalents 108:9 errata 133:1,10,12 134:15 ES 1:14 especially 71:6 Esquire 1:21 2:10,13 2:16 3:9 4:10,13,16 5:12 6:11,23 7:10 essential 110:9 ester 109:6 110:5 et 9:10 EUGIA 1:8 evaluated 107:10 everybody 86:20 evidence 102:24 exact 60:14 61:1 91:12 126:4 exactly 28:5 34:25 37:18 38:2 44:20,24 44:24 91:4,8 123:3 130:7 Examination 8:7 10:20 examined 10:18 example 19:14 24:18 27:8 35:6,7,16 36:1 36:2,18 38:18 42:24 45:12 50:3 55:7 56:19 58:1 60:24 61:1 65:8 68:8 76:22 77:4 95:9 98:4 101:4 107:12 114:22 115:1 115:11 122:20 125:9 127:16 128:11 examples 54:10 67:10 excerpt 65:19 exchangeable 57:7 excipient 34:23 35:17 36:10,22 44:24 55:2 56:10 58:8 64:22</p>	<p>68:16 69:5,8,16,19 79:21 excipients 25:17 26:7 27:10 35:11 39:20 40:2 44:19 49:24 50:25 53:22 54:8,11 55:9,13,21 57:17 58:11,17 65:12,20 67:4 136:14,19 exclusively 85:7 excuse 64:3 exhibit 11:8,13 39:19 65:11 72:16 81:5,6 81:18 87:10,11,20 105:9,12,17 109:21 111:9,10,16 112:9 117:2,4,5,8,11,15 123:17 126:9,10,16 136:3,7,12,17,22 137:1,3,6,8,11,14,17 137:19 138:1,4,8,10 exhibits 8:17 118:1 126:24 exists 99:13 experience 35:7 41:12 47:7,11 50:17,20 51:16 95:8 experimental 120:3 expert 10:6 16:1,22 27:3 84:10,13 92:24 106:21 expertise 21:5 95:10 95:13 119:11 expires 134:25 explain 86:23 89:25 explained 52:9 86:23 extensive 35:7 extent 52:17,20 70:5 70:12,17 71:22,24 87:4 88:6 102:22 eyedrops 20:17</p> <hr/> <p style="text-align: center;">F</p> <hr/> <p>F 81:2 131:5 132:1 136:1 fact 93:9 factor 48:17 49:15,17 49:20 factors 48:9,13,17,18 48:23 49:7,9,10,14 108:23 109:3 fair 46:24 84:9 85:3 88:11 93:20 familiar 39:4 40:9,13 54:18 73:13 fast 35:9 fast-dissolving 43:20</p>
--	---	--	---	--

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 142

<p>44:9 FAX 133:16,17 FCRR 132:24 FDA 119:24 Federal 132:6 feel 54:3 87:23 field 19:12,14,15 50:16 84:11 Fifth 7:21 figure 89:15,19 112:5 file 97:12,14,21,24 filed 103:3 fill 77:16 filler 36:1,13,14,25 37:1 57:2,4,6,7,8 78:17 fillers 57:1 filling 77:15 FINAL 1:24 find 68:16 fine 30:15 32:10 34:8 35:3 63:12 108:2 finish 15:14,15 finishing 95:11 Firm 1:22 firms 14:3 first 21:4 31:14,20 52:1,17 54:14 59:25 76:10 81:6,23 87:11 105:11 111:10 114:11,15 117:10,22 124:3,5 126:10 137:2,7,13,18 138:3 138:9 FISHERBROYLES 6:6 five 32:2 34:1,1 48:12 48:16,22 95:16 Floor 2:7 6:8 flow 56:21 flows 77:18 focus 45:25 54:4 78:10 91:23 focused 74:20 following 61:9,14 90:22 follows 10:19 Food 51:4 foregoing 134:10 forgot 51:25 form 22:1,15 23:10 24:1 25:9,15 26:11 26:24 36:20 37:15 52:6 55:5 56:22 60:11 65:6 71:23 72:3 74:25 76:8,20 91:17 96:10 98:5,14 99:5,6,8,9,16,22,25</p>	<p>100:7 102:1,5,11,14 102:19,20 104:9,10 104:12 107:5 109:4 109:6 110:6,11,17 115:20,24 116:9 119:1,17 122:12,14 122:20 126:2 129:18 130:8,8,17 134:14 former 47:7 forming 93:23 forms 99:17 128:5,7 Formulary 117:12,24 126:12 138:5,11 formulas 124:10,24 formulate 41:11 formulated 120:21,23 formulation 19:17 20:1,3,9,11,13,14,15 21:12,13,18,23 22:2 22:9,22 23:12,13,14 23:15 24:12 25:8 26:5 36:5,8,12,14,19 36:21,24 37:2,4,6,7 37:8,10,12,14,17,18 37:24 38:5,10,19,22 38:25 39:11 41:19 41:23 42:2,5,9,14 43:1,16,25 44:3,4,8 44:10,13,21 45:5,10 45:16 46:23 47:3,10 47:14,17,22 48:24 49:24 50:1,4,4,8,9 50:12,18,22 51:7,22 51:23 54:17,20 55:11 56:2,5,14,17 57:2,5,9,11,14,22,24 58:14 59:7,9,12,13 60:14,15,17 62:20 67:22 68:3,21 69:3,9 69:12,13,15,17,20 69:22 70:4,7,11,16 70:19,20,24,25 71:2 71:6,11,14,15,16 72:5 74:5,12,22 75:25 76:3,11,13,16 76:18 77:1,2,10 78:20 79:8,15 83:2 84:7,13 85:1 91:21 91:23,24 94:24 95:2 106:12,21 107:24 108:2 110:17 111:3 111:5 112:19,21 118:6,9,13,16,17,22 118:25 119:3,4,5,12 119:23 120:9,11 121:4,6 122:3,17 127:6,18 128:10</p>	<p>129:21 formulations 20:21 21:19 27:1 35:8,10 38:12 50:11 52:4 84:20 118:18 formulation/dosage 109:4 formulator 28:25 38:13 83:8 119:7 formulator's 79:22 Forsatz 2:13 9:24 forth 132:11 forward 52:25 134:4 found 12:16 foundation 18:3 23:10 four 51:10 fourth 57:1 Francisco 5:10 Frank 1:21 2:10 9:21 frankcalvosa@quin... 2:12 free 15:24 54:3 87:23 100:20 101:1,13 102:8,20 104:10,19 104:24 109:17 125:10 friction 70:6,13,18,22 71:22,24,25 Friday 9:3 friend 130:19 front 34:17 82:21 117:16 full 17:16,25 18:14 function 25:12,16,21 25:23 26:5,9,10,21 26:23 27:20,25 28:10 31:8,17 33:6 34:19 35:24 36:15 36:17,23 37:21,25 38:3,4,11,20,23 39:2 39:9,13 40:22 41:18 41:23 42:3,9,17,21 54:9,11 56:13 66:16 69:2 70:21 79:7,18 79:21 104:12 functional 40:20 55:20 66:3 78:11 functions 25:4,6,7 29:16 30:2,22 36:3 38:6,14 53:23 66:5,9 68:7 69:6,9,17,20 fund 18:4 funny 93:10 further 130:20 132:15</p>	<p>garage 50:23 gastric 35:9 general 19:4 22:8 38:24 84:23 90:18 96:13 119:2 120:10 120:14 127:20 generally 21:5 generic 16:12,18 17:4 Geoff 2:16 9:24 geoffkirsner@quinn... 2:18 give 42:24 54:10 65:8 76:22 given 18:16 38:22 45:10,16 48:17 97:22 132:13 134:12 gives 119:14 giving 26:15 27:7 64:20 118:20 119:22 glidant 66:23,24 glucose 41:25 79:17 79:18 glycol 67:13,18,19,22 67:23 68:6,13,20 go 32:15 47:9 50:23 51:10 52:15 54:2 58:10 59:17 63:3,7 63:12,16,20 64:1 86:4,25 95:12 101:5 103:11 113:3 114:21 goal 76:23 79:15,22 goals 76:14 goes 50:4 73:21 97:10 going 11:5 15:11 31:25 32:13,23 33:1 33:13,18 34:2 52:25 53:2 63:10 107:22 117:1 good 10:22,23 130:19 Goodrich 5:6 10:15 graduated 47:8 granting 53:6 granule 56:20,22 granules 56:20,21,23 greater 101:13 grounds 15:10 guess 18:19 41:15 77:25 86:11 97:11 115:8 117:22 GURPREET 6:11 gurpreet.walia@fis... 6:13 guys 93:10</p>	<p>halfway 124:3 Hammer 32:6 hand 11:5 33:4 117:1 132:20 handbook 27:9 30:10 30:25 31:3,12,15,20 31:23 34:16,22 39:20 40:1 58:8 64:22 65:12,19 68:15 136:13,18 Handed 65:16 handing 39:16 81:17 handle 50:25 55:8 56:9,11 handwriting 123:18 Hanson 5:12 10:14,14 13:17 52:15,20 happy 32:5 113:3 HAYNES 6:18 HCI 128:17 heading 40:19 81:6 87:11 105:11 108:8 109:23 111:10 117:10 121:12 126:10 137:2,7,13 137:18 138:3,9 hear 91:11 129:24 heard 13:15 16:6 hereinbefore 132:11 hereunto 132:19 Hertko 3:9 10:2 Hetero 1:5,5,6,6 14:4 14:6 high 51:15 higher 45:11 50:20 101:20 116:10 129:4 129:13 history 97:12,15,19,21 97:24 hold 83:15 holder 16:18 17:4 HOLLISTER 7:5 hope 73:7 83:10 hours 34:4 HPE 27:12,15,22,25 28:3,6,7,8,10,11,17 29:7,14,20,24 30:5 30:20,25 31:7,17 33:4,6 40:8,12 65:4 78:7 HPMC 36:11,18,24 37:5,11 Hs 89:25 91:15,22 human 21:6,10,16,18 24:23 humans 21:14 hydrate 102:6,8,10,13</p>
--	---	--	---	--

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 143

<p>102:14,18,19 104:5 104:9,11,18,18,19 125:8,9,13,18 126:5 126:6 130:8,13 hydrated 110:5 hydrates 103:7 124:1 124:10,24 hydrochloride 101:4 115:14,15 116:8 128:22,23 129:3,6,8 129:12,14,21 130:1 hydrogels 35:12 hydrogenated 74:1,11 hydrophilic 57:16 67:8 67:10 68:2 hydrophobic 58:17 59:1 67:5 77:6 hydroxide 115:10 hydroxypropyl 36:11 hypothetical 37:16 38:16 60:12 76:9,21 76:24</p> <hr/> <p>I</p> <p>idea 95:6 identification 11:11 11:16 39:22 65:14 72:19 81:9 87:14 105:14 111:13 117:13 126:13 Illinois 3:7 7:8 impurities 99:13,19 100:6 impurity 100:14,19 inaccuracies 12:14 inactive 22:20,23 23:1 23:7,11,16,21,22 24:3,5,7 25:3,5,17 25:19 26:3,4,6,8,10 26:20,22 27:16,19 27:22 28:1,9 29:15 29:16,25 30:2,21,23 31:7,8,16,18 33:5,7 34:18,19 38:5,23 53:22 124:14 include 14:4 48:11 95:2,21 100:6 130:13 includes 124:9,23 including 20:3,6 119:11 129:23 incomplete 37:16 38:15 60:12 76:9 Index 8:17 Indiana 11:3 73:5 indicates 20:1 indicating 81:25</p>	<p>individual 25:6 39:1 industry 47:9 51:17 107:3 information 41:14 60:23 68:17 83:12 100:12,22 113:6,8 113:15 114:12,17 123:10 informed 106:22 108:2 111:5 112:22 ingredient 22:9,14,17 22:24 23:4,12,17,21 23:23 24:6,7,12,16 24:22 25:13,17 26:1 26:1,4,9,10,19,20,23 28:1,9 29:15,17 30:1 30:2,21,23 31:7,9,16 31:18 33:5,7 34:18 34:20 37:19 38:2,5 38:11,13,19,23 39:1 44:5 76:4 124:8,14 124:16,17,22 125:12 125:18 126:4 ingredients 21:24 22:3,11,20,22 23:1,7 24:4 25:3,5,20 26:4 26:6 27:16,19 38:9 44:12 51:1 53:22 56:8 70:6,18 71:15 107:5 Ingrid 7:25 9:15 injectables 20:17 39:12 insoluble 20:5 instructed 128:25 instruction 123:2 128:24 129:1,5,10 129:15,20 INSTRUCTIONS 133:1 instructs 15:18 intact 58:5,13 60:4,9 60:18 61:15 62:19 72:3 intended 24:25 26:2 interchangeably 78:18 interested 121:6 132:18 interject 53:1 intern 95:12 interrupting 84:24 invention 107:11 inventor 73:10 inventor's 73:2 involve 16:14 ion 121:20 issues 19:11</p>	<p>IV 20:17</p> <hr/> <p>J</p> <p>J 2:13 3:9 10:2 Jagoe 4:10 10:4,8,9 13:7,9,11,15 15:18 17:7 19:1 22:1,15 23:9 24:1 25:9,15 26:11,24 28:2 30:9 30:17 31:10,19,24 32:8,11,15,19,25 33:8,12,15,19,22,25 34:6,9,13 36:20 37:15 38:7,15 41:5 41:13 44:16 47:4 52:6,13,17,21 53:5 55:5 60:11,21 61:16 61:22 62:1,5,7,10,13 62:21 63:7,10,15,20 64:1,5 65:6 71:23 76:8,20 79:2 80:2 85:17 86:16,22 87:1 90:2,9 91:3,17 92:5 92:13,16 93:2,6 94:20 96:10 99:5,9 99:22 100:7 102:1 102:22 103:2,6,8,12 103:18 115:24 116:13 119:1,17 123:17,21 126:2 130:21 131:1 Jane 1:25 7:20 9:17 133:20 janerose@janerose... 133:18 January 126:12 138:11 JERSEY 1:2 JOHN 6:23 john.bateman@hay... 6:25 join 52:23 joined 101:17 Jones 3:5 10:2 judge 32:5,6 103:13 June 1:19 9:3,11 87:13 132:20 137:9</p> <hr/> <p>K</p> <p>keep 34:2 115:22 Keeping 32:25 Kinam 1:18 8:5 9:8 10:17 11:9,14 12:19 73:4,8 81:7 132:10 134:9,18 136:4,9 137:3 kind 95:22 100:13,13</p>	<p>Kirkland 4:6 7:17 9:14 10:9,11 134:4 Kirsner 2:16 9:25 know 15:9,21 18:22 27:6,9 32:17,19 37:18,23 38:17 45:6 50:25 51:12 55:24 56:3,4,14 57:2,11,22 58:20 59:18 60:13 72:11 73:8 76:16 86:2,7,9 91:4,8,12 100:10,15 103:21 108:1 120:4 122:25 122:25 123:4 127:7 knowing 60:14 knowledge 85:9 known 35:10,17 58:11 76:25 77:3 96:5 108:4,6,11 Kristina 5:12 10:14</p> <hr/> <p>L</p> <p>L 80:6 lab 86:11 laboratory 96:19,20 LABS 1:5,5 lacks 23:9 Lafayette 11:3 73:4 language 61:9 large 20:5 larger 36:13 45:5,9,13 45:15 54:24 law 92:11 lawyers 14:21,22,25 Lead 1:21 left-hand 121:15 123:11 127:11 letter 14:10,13 let's 28:13 52:14 59:17 59:23 64:1 72:13 88:23 92:16 94:8 101:5 114:1 121:1,8 122:10 level 48:10 50:18 55:17 Lexington 4:7 Li 7:17 10:13 licensed 83:21 lidocaine 115:1,7,9,12 115:13,15,20 116:4 116:8 128:12,13,16 128:19,21,23 129:2 129:3,6,7,11,12,14 129:16,21,25 130:4 130:5,6,11,12,16,16 LIMITED 1:5,5,6,7,9 6:4</p>	<p>line 73:16 78:1 87:7 89:14,18 90:1 91:16 91:16,22 135:1 lines 89:17 90:6,8,12 90:14,15,17 91:19 91:24 92:6,24 93:14 list 20:19 27:15,22,25 48:12,16 66:8 75:22 listed 28:9 31:7,8,16 31:17 33:5,6 34:18 34:19 54:14 56:13 59:4 73:4,10 82:19 listen 32:6 lists 28:10 29:16 30:1 30:22 40:22 41:1 66:5 litigation 16:17 little 7:16 10:3,4,5 45:1 52:12 119:20 120:16 127:21 LLC 1:8 6:5 LLP 4:6 6:6,18 7:5,17 9:14,22 134:4 long 28:24 29:1,2 59:22 64:20 77:18 98:5 100:5 look 11:19 12:17 27:8 29:22 45:21 46:25 72:13 82:20 86:3 87:23 89:12 94:8 97:25 101:5 107:15 114:10,14 121:1,8 121:11 127:8 looked 28:17 29:7 looking 29:13,24 30:19 48:8 66:1 73:16 99:16 101:8 106:5 109:23 114:5 114:22,25 121:7 123:20 124:3 lot 45:3 low 58:18 60:24 lower 50:18 lowering 24:19 Lozenges 127:12 lubricant 12:20 57:22 57:25 58:1,3,9,12,16 60:2,10,17,20 61:6 61:10,14 62:19 64:14,17,20,23 65:5 65:5 66:8,13,16,19 66:22 67:4,24 68:4,9 68:10,12,22 69:2 70:5,12,17,22 71:3,4 71:7,12 72:1,6 73:19 73:24 74:6,18,22 75:3,10,16,18 76:1,7</p>
--	---	--	--	--

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 144

<p>77:11,19 lubricants 57:21 58:6 58:7 59:17 64:21 67:8,11 68:2 74:13 74:23 75:7 Luck 133:24 lunch 81:15</p> <hr/> <p>M</p> <p>M 5:12 machine 58:3 60:1 70:23 72:2 machinery 70:7,19 71:16 Madison 2:6 magnesium 73:25 74:10 75:4,24,25 76:4,6,18 77:2,4 MAH 1:14 MAIL 133:16 main 36:15,17 79:18 133:22 maintained 110:20 Majority 17:2 making 19:17 20:12 118:18 mall 44:6 manganese 75:22 Mark 4:13 10:12 marked 11:6,10,16 39:17,21 65:14,17 72:19,21 81:8,18 87:13,16 105:13,16 105:21 111:13,15 113:7 117:5,13,16 126:13,15 Market 5:7 marketed 21:19 Markman 87:2 marks 53:15 81:11 mark.mclennan@ki... 4:15 marriage 132:17 Master's 50:19 material 74:17 matter 9:9 13:23 132:18 Matthew 3:9 10:1 McLENNAN 4:13 10:12 mean 13:14 18:9 19:13 20:14 21:11 22:11,13,21 24:15 24:22 25:10 26:9,22 36:7 39:5 42:22 62:9 65:5 69:12 75:6,8 82:3 84:5 90:7,13</p>	<p>91:6 95:16,19 96:18 96:19 97:16 98:11 98:18,22 103:21 112:25 meaning 59:1 means 16:11 19:10 22:17 72:8 88:17 91:7 100:4 128:9 meant 25:17 measure 123:6 measuring 19:18 media 9:7 medical 83:15,18 95:7 95:11,11 memory 29:13,23 30:13,19 31:1 mention 26:16 125:5 mentioned 45:18 50:12 52:3,7,9 55:6 75:22 91:25 102:17 104:3 125:4 mess 108:24 method 60:9,19 64:13 94:10,15,18,23 106:15,18 107:23 108:1 109:13 111:4 112:22 118:10,19,24 119:6,8 methyl 35:22 methylcellulose 36:11 mg 115:14 mgs 98:7 115:7,12,15 116:4 mhertko@jonesday.... 3:12 middle 70:8 milligram 43:24 44:2 94:5,6 128:13,17,18 128:19,21,22 129:6 129:7,16,22,22 milligrams 44:10 115:9 129:2,11 mind 49:11 mine 86:24 Minus 100:8 mischaracterizes 38:8 misheard 23:5 mistakes 12:13 misunderstood 113:24 124:19 mixture 49:24 101:23 MM 90:1 91:16,18,22 mobile 3:11 moiety 108:9,13 109:5 109:13 110:4,11,19 111:12 114:8,23 115:23 116:5 121:24</p>	<p>122:7,15,23 123:4 123:14 124:8,13,22 137:20 molecular 20:5 101:12 101:19 molecule 54:22 98:20 101:17 molecules 98:19,22 98:24 money 18:4 Monohydrate 99:2 morning 10:22,23 mouth 43:7 79:9 120:8 120:20 move 31:24 32:3,4,11 32:22 33:13,18 moving 32:8 multipage 11:8,13 39:19 65:11 72:16 81:5 87:10 105:11 111:9 117:10 126:9 136:4,8,13,18,23 137:2,7,13,18 138:3 138:9 multiple 29:16 30:1,22 84:17 85:1,11,16,24 86:6,7,10 92:24 93:17,25 MURRAY 7:10 myeloma 84:18 85:2 85:11,16,24 86:6,8 86:10 92:24 93:17 93:25 Mylan 1:10,10,11 5:4 10:16 13:17,23 14:6 52:23 86:19</p> <hr/> <p>N</p> <p>N 2:1 3:1 4:1 5:1 9:2 80:6 81:2,2,2 131:5 131:5 136:1 name 10:24 18:10,14 82:24 names 15:3 National 117:12,24 126:12 138:5,11 necessary 58:15 73:20 129:18 need 27:6 28:8 37:18 37:23 38:4 45:6,12 50:21 52:2,25 56:19 61:1 71:3,4,7 77:11 77:18 79:6 95:7,12 96:24 97:4 116:10 116:13 118:7 120:2 123:6 125:3,9 130:7 130:9</p>	<p>neither 105:2 never 69:8 new 1:2,20,20 2:8,8 4:8,8 6:9,9 7:22,22 9:4,4,14,14,17,17 16:11 19:21 82:9,12 132:3,4,8 newly 35:11 NF 126:22 nice 59:22 Nos 11:10,15,22 39:21 49:7 65:14 72:18 81:8 87:13 111:13 136:5,10,15,20,25 137:4,9,21 notary 132:7 133:4,6 134:24 noted 131:6 134:15 Notice 8:15 134:1 November 11:10 12:8 72:18 81:8 82:1,4 136:5,24 137:4 number 20:7 81:24 91:12 95:17 N.V 1:11 N.W 6:19</p> <hr/> <p>O</p> <p>O 9:2 81:2,2,2 131:5,5 136:1 oath 61:17 object 15:12 86:17 102:22 objected 103:14 objecting 52:18,21 objection 15:16 22:1 22:15 23:9,10 24:1 25:9,15 26:11,24 28:2 36:20 37:15 38:7,15 52:6,24 53:7 55:5 60:11,21 62:10 63:18 65:6 71:23 76:8,20 79:2 90:3 91:17 96:10 99:5,9 99:22 100:7 102:1 103:8,10,16,22 115:24 119:1,17 126:2 objections 33:17 62:9 Objectives 109:24 observation 47:12 occur 120:11 offered 105:3 offering 92:3,5,7,18 office 3:10 4:17 6:12 Offices 133:21 official 17:24</p>	<p>oftentimes 16:17 Oh 10:8 32:13 56:16 57:23 62:1 108:20 oils 74:1,11 okay 10:8 13:19 27:13 29:12 31:2,4 34:6 39:14 43:14 46:21 49:12 52:10,14 53:10 62:12 63:9 64:1 70:2 71:9,19 72:4 74:21 75:21 79:11 80:1 84:22 85:22 86:12 88:23 89:6 92:15,16 93:20 95:5,18 96:1 100:17 100:24 103:11,15,23 105:7 106:8 107:14 112:12,13 113:2 114:1,2 116:2 119:25 120:16 121:21 126:7 130:22 once 68:3 120:22 133:12 oncologist 95:7 oncology 84:4 95:11 ones 17:3 50:11 open 62:18 87:20 opening 117:5 118:2 opine 47:23 100:16 104:14 opined 59:19 87:24 99:15 100:11 opinion 37:1,7 40:13 50:2,14 51:21 52:2 69:15,21 77:14 78:3 83:11 92:3,6,7,18 100:18,23 104:16,20 104:21 105:1,6 112:16,22 126:1 opinions 93:24 105:3 opposed 25:8 71:1 oral 35:8 83:1 order 32:5,9,22 33:14 ordinary 45:18 48:10 50:15 52:8 94:18 95:1 original 81:19 105:17 111:16 126:16,25 outcome 132:18 outside 26:12 52:18 52:21 85:17 86:18 87:5 90:2 91:3 96:10 overall 38:9 oxide 67:14 68:4,5</p> <hr/> <p>P</p> <p>P 2:1,1 3:1,1 4:1,1 5:1</p>
--	---	---	---	--

US District Court - New Jersey
Celgene v. Hetero LabsFINAL - June 7, 2019
Kinam Park, Ph.D.

Page 145

<p>5:1 7:10 9:2 131:5 page 8:8,13,15,17 12:4,4,24,25 17:12 21:1,1 40:15,17 48:6 48:6 54:3 66:1 77:21 78:1,10 81:6,23,24 82:9,15 87:11 97:8 97:11,11 105:12 106:5 107:16,18,19 109:20 111:10 112:8 112:8 114:5,11,14 114:15,16,18,21 115:4 117:11,21 121:8 123:11 126:10 127:8 135:1 136:3,7 136:12,17,22 137:1 137:2,6,7,11,14,17 137:18 138:1,4,8,9 pages 134:10 Par 9:10 paragraph 17:12 18:8 21:2 35:5 45:21,22 45:25 46:5 47:1 48:3 48:5,23 52:9 54:2 77:20 78:2 94:8 97:25 98:13 101:8 106:17 114:15,17 115:2 121:14 123:7 123:10 124:4,5 paragraphs 114:11 parenthesis 73:3,5 110:4 park 1:18 6:7 8:5 9:9 10:17,22 11:6,6,8,9 11:13,15,19,20 12:17,19 13:18,22 17:10 26:15 28:24 34:16 35:6 39:17,19 40:15 45:21,22 46:1 46:4,4,25 48:3 53:19 54:2 59:20 62:17 64:12 65:11,17 66:1 72:16,22 73:4 77:20 78:6 81:5,7,15,18,18 81:19,21,21 82:15 83:15 87:10,16 94:8 97:8 101:8 105:9,17 105:18,22 106:4,5,6 106:8,17 111:9,15 111:17 112:4 113:7 113:8,12,13,17,22 114:5,10,14,15,16 114:18,21 116:23 117:5,6,8,16 118:2 121:1,3,8 126:9,15 126:17,21,25 127:5 130:22 132:10 134:9</p>	<p>134:18 136:3,5,7,9 136:12,17,22 137:1 137:3,6,11,17 138:1 138:8 Parks 73:8 Park's 105:17 111:16 126:16 part 14:12 21:1 52:1 55:18 59:25 partially 104:18,19 particle 54:24 55:9,13 55:15,16,19 particles 54:23 55:7 59:13 particular 16:15 29:20 69:3 84:6,19 91:24 104:14 112:20 118:6 parties 132:16 133:13 parts 92:19 party 41:15 patent 11:22,24,25 12:1,2,21,22 16:4,18 17:4 46:2,6,10,12,17 46:22,22 47:24,25 72:17,22 73:11,13 87:12,17 88:2,5,9,16 90:23 92:8,20 93:1,5 94:14 97:12,19,20 109:12 136:23 137:8 patents 16:14 47:16 47:19,23 49:22 50:12 51:23 72:12 87:24 94:11,15,19 99:15 106:16 109:13 patient 84:14 85:23 86:6,7,9 95:24 96:7 96:25 97:4 118:20 119:15,23 120:8,18 128:10 patients 19:18 84:1 96:6 118:23 Pause 14:2 17:9 19:22 20:25 21:3,22 22:25 24:20 25:1 27:4 35:4 35:18,20 36:9,16 39:3,15 40:4,10,24 41:21 42:7,10 43:18 43:23 44:14,18 45:23 46:13,15,18 47:6 48:1,7,25 50:10 51:14 52:19 53:9,11 54:1,6 55:25 59:24 61:3 66:17,25 67:2 67:17 69:7,11 70:3 71:8,10 72:7 74:7,15 74:19 75:12,20 77:8 77:22 78:4,23 79:20</p>	<p>79:24 83:14 85:4 89:11,20,23 90:4 93:15 94:2,9 97:2,7 97:9 98:1,9 99:1,23 100:25 101:7,9 102:2 105:25 106:3 106:25 107:8 109:15 109:22 110:12,22 112:7 113:10 114:4 114:19 115:19,21 116:12,25 117:3,19 119:13 120:25 121:9 123:16,23 124:11 126:18,23 127:3 pending 15:23 peptide 20:6 percent 98:7 123:15 period 95:14 person 45:18 50:15,20 52:8 94:17 95:1 107:6 126:3 personally 69:4 pH 102:11 104:12 PHARMA 1:7,8,8,9 6:3 6:4,5 pharmaceutical 1:11 6:17 9:10 19:12,14 19:15 21:16 22:17 24:16,22 27:9 34:23 35:10,17 37:3 39:20 40:1,2 50:16,18 51:16 58:8 64:22 65:3,12,19 68:16 84:17 105:12 106:1 107:3 111:11,21,25 136:14,19 137:14,19 pharmaceuticals 1:10 1:12 4:4 5:5 21:6,11 83:22,25 pharmaceutics 17:17 19:24,25 20:1 pharmacist 110:2 114:18 115:13 127:17 128:9,17,20 129:7,11,16 Pharmacists 51:10 pharmacodynamics 20:3 pharmacokinetics 19:19 20:2 pharmacologically 108:13 110:3,19 121:24 122:6,15,22 Pharmacopeia 117:12 126:11 138:5,10 pharmacotherapeut... 108:12</p>	<p>Phase 120:13 phone 14:20,21,23 15:1 32:6 53:4 phrase 16:6 physical 55:16,17 Ph.D 1:18 2:13 8:5 10:17 11:9,15 12:19 47:8 50:16 132:10 134:9,18 136:5,9 pill 119:15,15,22 120:8,19,19,20,22 Pittsburgh 7:16 plaintiff 1:4 2:4 3:4 9:23 Plaza 5:7 please 9:19 30:16 31:3 62:8 77:9 133:10 plural 91:7 point 30:12 45:17 76:19 100:23 104:15 105:1 120:7 polyethylene 67:13,14 67:18,19,22,23 68:4 68:5,6,13,20 polymer 57:17 polymers 35:11 pomalidomide 98:4,6 98:7,14,15,21 99:3 99:20,21,24,25 100:2,4,5,20,21 101:1,2,4,12,13,19 101:20,22,23,24 102:6,9,18 104:8,9 104:17,22,23,25 109:14,16,18 portion 45:6 58:3 60:3 102:7,8,18,19 104:23,23 113:16,22 113:23 121:23 122:6 122:14 125:20 portions 78:7 88:8,9 88:13 97:23 POSA 40:13 45:19,21 46:1,5,10,11,21,23 47:3,14,17,22 48:24 51:18 54:17,18,20 55:24 56:3,5,14,17 57:2,5,11,14,22,24 58:20,22 59:6,7,9 66:12,14 67:21,22 69:16,22 70:4,11,16 70:24 71:11 72:5 74:5,12,23 75:25 78:20 91:21 106:12 106:15,18 107:6,9 107:23,24 108:1,2</p>	<p>109:7 111:5 112:22 118:6,9,10,11,14,15 118:16,19,24 119:7 122:2,4,17,19 123:9 123:12 124:25 125:2 126:3 127:25 POSAs 77:1 107:23 108:6,11,18,21 109:1,9 110:1,8,14 110:23,25 112:17 118:4 121:2 122:13 127:4,15 position 18:1 86:23 92:25 93:4,8 possible 38:12 42:20 42:23 60:9,13,18 68:23,25 101:22 102:7 104:7 130:17 possibly 86:20 130:12 pouring 77:16 powder 56:22 71:5 77:18 powders 77:16 127:12 Practice 83:3 practicing 70:1 precise 41:6 predominate 48:19 49:10,14 predominated 49:11 preparation 12:11 14:16 prepare 115:7,14 127:17 prescribe 83:21 prescribed 127:18 presence 101:21 present 7:15 10:3 14:16 48:18 98:18 98:20,23 105:5 110:5 pressure 60:25 prevent 71:20 prevents 71:12 previous 104:3 principles 19:20 priority 107:12 probably 23:22 24:6 27:6 53:3 66:15 102:4 problems 93:16,24 94:3 procedures 110:16 proceeding 87:3 102:23,24 103:17,20 produce 58:5 60:4 product 55:4 85:9 118:17,20</p>
---	--	--	---	--

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 146

<p>productive 63:24 products 110:10 professional 63:14 professor 17:15,17,22 17:24,25 18:1,6,15 pronounce 82:23 proper 62:2 95:14 properties 55:1 proportional 45:12 propounded 134:13 proprietary 41:14 protective 32:5,9,22 33:14 proteins 20:6 provide 18:4 27:18 45:20 46:5 83:12 113:14 114:12,16 provided 123:10 public 132:7 133:4,6 134:24 publication 126:22 publications 82:8 Purdue 11:2 17:18 18:12 19:1,4,9,25 47:8 pure 98:5,12,16,17,21 99:20 100:3,5,20 123:4 129:16,17 130:2,4,8,11,15 purpose 55:4 put 33:16 43:7 44:9 63:23 67:1 99:19 120:4 125:24 putting 120:8,18 p.m 81:13 116:17,18 116:18,21 131:3,6 P.O 133:23</p> <hr/> <p>Q</p> <p>qualification 120:5 qualifications 17:11 52:3 qualified 51:20 qualify 51:17 quantitatively 110:10 quantity 36:13 58:13 58:18 74:18 110:18 122:22 127:19 question 15:15,19,22 15:23 22:4 23:6,16 24:10 25:25 29:23 30:8,9,13,16,17 31:14,23 32:12,24 33:11,24 34:1,3,5,12 42:13 46:19,20 47:18 51:25 52:1 61:2,22,24 62:3,3,14</p>	<p>63:2 75:17 87:8 93:22 96:14 99:10 100:12 103:24 108:17 109:7 110:23 113:11,25 115:10 122:9 128:12 129:9 129:19,25 questions 15:12 28:4 45:19 87:5 90:19 96:13 107:22 114:1 130:18,21 134:12 quick 79:25 Quinn 1:22 2:5 9:21 9:25 quite 25:10 59:2 quotes 113:3</p> <hr/> <p>R</p> <p>R 2:1 3:1 4:1 5:1 9:2 80:6 81:2 131:5 132:1 Rainoff 7:24 9:17 132:6,24 ranging 35:8 rank 17:23,24 ratio 49:25 RAY 6:11 read 8:15 54:4 75:1 88:2,5,13,15,20,21 88:24 89:4,5,8,17 90:23 92:2,9 97:18 113:12,13,18,21,22 113:23 128:3 134:1 134:10 reading 72:11 123:7 127:23 real 37:21 really 29:20 49:23 50:9 95:10 106:23 122:25 Realtime 132:7 reason 45:14 49:6 91:19 135:1 reasonable 76:13,15 reasons 59:15 recall 14:9,13,18 15:3 15:7 28:21,23 35:25 39:10,13 44:11,24 45:8 61:11 62:17,23 receipt 133:11 receive 74:16 133:12 Recess 53:14 64:8 116:18 recognize 81:21 105:21 112:4 117:22 126:20 record 9:20 10:25</p>	<p>33:17 52:16 53:13 53:17 55:12 63:3,6,8 63:11,13,16,17,21 63:23 64:2,7,10 72:22 80:4 81:13 116:17,21 131:3 132:13 reduce 70:5,12,17,22 71:21 72:1 refer 11:23,24,25 12:2 12:22 46:21 106:4 references 88:21 referred 66:18 referring 124:15 refers 20:15 124:17 refusing 30:7 related 19:11 50:16 85:8 132:16 relates 21:5 Release 83:2 relevant 88:13 103:19 103:19 reliable 83:12 relying 92:20,21 93:3 remainder 78:2 remains 99:11 remember 14:24 15:2 28:11 31:6,16 33:5 34:17 39:8 44:19 45:1 53:24 68:2 73:15 remove 99:14 repeat 47:18 122:9 report 26:17 27:5 29:18 30:4 31:2 86:1 86:3,4 87:23 88:7,14 88:16 92:1 93:19,21 93:24 96:12 100:16 104:13 112:6,9 113:5 123:13 125:4 125:5,7 reporter 7:24 8:13 9:16 132:7 Reporting 1:25 7:20 9:17 133:20 reports 90:21 93:19 represent 39:24 65:18 represented 13:5 representing 10:10 represents 121:24 122:6,14 require 51:9 required 122:22 133:5 133:6 requirements 110:18 requires 94:23 research 35:7 95:8,19</p>	<p>95:21 96:18 resident 95:12 residual 99:4,6 residuals 99:11 resorb 77:6 resort 55:8,13 respond 32:16 33:1,2 33:8 34:10,11 responded 34:1 response 108:15 responsible 108:14 rest 22:23 resulting 128:18 retained 13:18,22 14:3 14:5,10,13 retention 35:9 return 133:10,16 review 12:10 97:14,23 113:5 reviewed 49:22 right 13:3,4,10 14:7 21:25 22:10 24:8,24 25:8 29:2,4 38:14 40:23 41:3,7 42:5,6 46:2,7 51:18,19 52:5 54:12 59:20 60:6 61:12 62:21 64:25 66:6,10,11 67:6,19 67:24 68:11,14 69:23 73:11 75:19 76:13 77:12 78:21 83:19,20,22,23 84:1 84:2 85:14 87:25 89:2,9 93:11 94:15 96:7,7,16 100:9 101:13,14,15 105:4 109:14,18 111:6 112:13,14,18,23 113:9 115:16,23 116:5,9 118:2,10,17 118:21,25 119:16 120:21 121:25 122:16,23 125:21 127:1 129:4,14 RMR 132:24 Rodriguez 7:25 9:15 Rosati 5:6 10:15 Rose 1:25 7:20 9:17 133:20 rules 15:10</p> <hr/> <p>S</p> <p>S 2:1 3:1 4:1 5:1 80:6 80:6 81:2,2,2 136:1 safe 51:9 Salas 32:6 salt 98:5,14,15,18,19</p>	<p>98:24 99:16 100:1 101:2,12,19,21,24 102:4,5,11 104:12 104:22,23,25 107:5 109:5 110:5 115:20 116:9,11 121:19 122:5,12,14,20 123:15 125:18,19,20 126:5,6 128:13,17 128:18 129:18,23 130:8,13 salts 100:8 104:4 124:2 San 5:10 sanctions 33:18 satisfy 110:17 saying 47:1 75:3 101:11 102:21 104:7 128:16 130:16 says 32:21 40:20 41:4 41:5,8 73:19 78:13 89:14 90:11 91:18 108:16 114:8 117:15 121:17 124:2,7,20 127:12 school 11:2 18:11,17 51:15 95:12 sciences 50:17 scientist 36:8,12,14 36:19,25 37:4,8,10 38:25 47:14 79:16 91:23 111:3,6 112:19,21 121:5 127:6 scientists 26:5 36:5 36:21 95:3 118:12 118:13 119:3,12 scope 26:12 52:18,21 85:17 86:18 87:2 90:2 91:3 96:11 second 55:20 63:4 64:19 73:23 86:3 93:14 section 17:11 27:18 28:6,12 29:20 34:24 58:9 64:23 73:3 82:16 108:8 109:23 114:7,11 121:11 124:2 see 17:19 21:8 28:5,8 29:20 30:5 31:11 35:14 38:4,9 45:17 48:14,20 62:21 73:19 74:2 82:17 94:12 96:25 97:3,4 98:8 103:19 seen 22:7,19</p>
--	---	---	---	--

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 147

self-administer 43:15 sense 57:20 84:12 101:15 sentence 21:4 35:5 48:8 54:5 73:23 77:25 98:3 124:18 124:20 127:23 128:1 128:2 series 15:11 serve 38:14 serving 16:1 session 53:21 set 132:11,20 setting 119:21 settings 96:21,22 119:19 120:3 settle 59:14 seven 34:4 shape 71:5 Sheet 134:15 show 28:3,7,12 31:3 31:13,20,22 34:25 61:17 62:14,25 Showalter 17:15,21 18:3,5,14 shown 58:7 64:21 shows 115:11 side 50:6 Sign 8:15 134:1 signature 12:5,25 133:4,6 signed 12:7 13:2 14:14 133:10,12,16 134:20 significant 82:6 silicon 65:13,22 66:9 66:13,19,21 136:20 silicone 66:15 simple 15:10 simpler 122:11 simply 20:15 31:11 34:22 38:1 41:7 49:24 75:3 128:16 129:20 130:16 sincerely 83:10 SINGH 6:11 sitting 39:8 situation 78:24 79:3 79:12 130:7 situations 121:18,22 six 51:10 95:17 Sixteen 48:6 Sixth 39:21 40:2 65:13 65:20 136:14,19 size 54:24 56:12 skill 45:19 48:11 50:15 52:8 94:18 95:2	slippery 72:6,10 73:24 74:6,9,13,20,24 75:5 75:6,11,14,15,18 small 44:6 45:5,6 54:23 55:7,15 56:9 58:12 74:18 79:17 solid 72:6,10 74:6,17 75:5,7,11,15,18 solids 73:24 74:9,14 74:24 75:14 solubility 109:3 solubilizer 58:20,23 58:24 59:2 solubilizers 58:19 soluble 20:4 solution 20:17 39:11 59:12 115:7,8,9 solutions 20:17 solvate 98:19,24 99:2 99:6,8,10,16 100:1 100:13,14 107:5 solvates 100:8 solvent 98:19 99:10 solvents 99:4,6 somebody 13:15 Sonsini 5:6 10:15 sophisticated 50:2,9 sophistication 49:21 49:23 50:14 sorry 26:19 27:23 37:3 40:1,7 42:13 44:1 46:4 51:25 65:3 70:8 70:9,15 84:24 91:11 107:17,19 108:23 111:19 113:2,12 122:3,8 sort 55:20 sounds 61:12 South 133:22 span 54:3 spans 77:21 speaking 33:17 62:9 Spear 5:8 special 122:17 specialist 84:3,6 SPECIALTIES 1:9 specific 23:14,15 28:12 34:24 37:5 38:17 42:14,24 43:1 44:8,21 58:9,11,16 61:1 64:23 65:8 67:4 68:3,8 76:14,22 100:12 119:20 120:17,19 122:25 127:22 128:10 130:9 specifically 79:19 85:2 101:3 109:17	114:7,25 121:14 specification 92:10 specifics 27:6 specify 39:2 68:11 130:15 stability 20:6 stamped 105:10 117:9 137:12 138:2 standing 52:24 53:6 start 26:19 27:24 88:23 108:24 starting 19:17 starts 116:19 state 9:19 132:3,8 statement 125:1 states 1:1 12:21 72:17 82:1 87:12 117:11 126:11 136:23 137:8 138:4,10 stearate 73:25 74:10 75:4,23,24 76:1,5,6 76:18 77:2,4 stearic 73:25 74:10 75:5 STETTINIUS 7:5 Steve 10:3,4,5 Steven 7:16 stick 58:4 60:3 sticking 71:12,13,20 71:21 72:1 straightforward 106:24 street 6:19 51:6 133:22 students 47:8 study 20:7 120:13 studying 84:7 sub 128:6 submitted 11:21 12:20 subscribed 134:20 substance 94:21 121:19,23 134:14 substances 124:9,23 subtract 125:15,19 sufficient 127:18 Suite 5:9 6:20 7:7 Sullivan 1:22 2:5 9:22 Sultan 90:1 91:15,19 91:22 Supplemental 11:14 12:18 136:8 supposed 107:10 128:21 sure 14:10 15:9 25:10 27:14 29:9 41:9 42:22,25 51:8,12 56:4 59:12,18 63:1	64:5 65:7,9 70:10 72:8 76:10 84:5 85:6 97:16 99:8 100:10 100:11 107:20 115:25 119:21 122:10,24 128:4 sustained 35:12 swallow 79:6 sweet 42:1 43:8,10 sweetening 41:2,20 41:24 42:1,4,16,17 42:21 43:3,5,8 45:4 45:10,13,15 79:1,7 79:10,14 sweeter 43:22 swell 57:17 swipe 77:16 switch 123:21 sworn 10:18 132:12 synthesized 35:11 system 20:16,18 systems 19:21 20:20 84:8 <hr/> <p style="text-align: center;">T</p> <hr/> T 4:10 81:2 132:1,1 136:1 TABLE 8:1 tablet 20:16 41:5,8,9 42:1 43:20 44:9 50:24 51:5,7 56:12 58:2,2,4,5,13 60:1,3 60:5,8,10,19,25 61:15 62:19 64:12 64:15,16,18 70:22 71:1,5,14 72:2,3 77:5,7 78:14,25 79:5 79:13 120:23 tablets 35:9 41:11 56:25 57:18 61:5,9 72:3 127:13 TAFT 7:5 take 11:19 12:17 15:20 52:11 72:13 79:25 82:3 93:8 120:22 taken 9:13 talc 73:25 74:10 75:4 talk 14:12 21:23 28:13 29:19 30:6,25 31:1 34:24 62:25 63:16 63:23 92:13,16 93:18 97:10 100:1 106:16 talked 53:21 71:17 124:1 128:11 talking 15:16 23:11	24:11 28:6 29:21 30:11 35:1 37:19 38:18 42:15 43:2 50:13 51:5,6,23 52:5 59:25 64:13,15 65:7 65:20 68:9 100:3 104:4 119:18 120:1 121:18 123:1 128:8 talks 27:19 94:10 103:7 tape 53:16 81:12 116:20 teaching 69:25 team 95:4 106:21 118:12 technology 49:21 Teflon 75:14 TELEPHONE 6:1 7:1 tell 28:8 29:14,25 30:20 37:20 38:2,10 49:19 63:15,20 76:14,23 85:23 86:5 86:9 87:8 119:2 120:10,14 128:2 telling 32:11 60:16 111:23 temperature 24:19 Ten 28:20 term 12:20 18:9 22:19 23:24 57:8 terms 11:22 22:7,8 59:19 107:4 test 43:4,9 86:11 testified 10:19 29:5 61:4,7,8,13 testify 17:4 94:7 testifying 62:18 testimony 52:22 93:6 130:14 132:13 testing 91:1 tests 43:2 Teva 1:12 4:4 10:10 13:24 14:5 26:15 27:3 52:22 86:15,19 87:1,6 text 88:20 thank 53:20 63:1 81:16 116:24 123:24 130:22 Thanks 130:24 131:1 thanson@wsgr.com 5:14 themselves 118:25 Theory 83:3 therapeutic 41:1 42:11 108:14 110:20 thickener 59:7,10
---	--	--	--	--

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 148

thickeners 59:5,11,16 thing 21:11 53:2 54:4 64:19 71:24 113:19 things 52:15 69:1 think 14:3 16:5 22:8 23:5,19,20 25:2 29:10 38:21 40:14 52:7 54:19 56:1 61:17 63:24 66:20 67:12,15,16 68:23 69:4,14,18,18 70:21 71:2 75:1,13,19 76:12,16 83:13 88:21 90:5,11 96:17 99:24 100:2 101:3 103:2,6,18 108:20 109:11 111:2,7 112:8 118:3 120:1 123:12 127:2,20 thinking 96:23 third 48:8 56:13 115:1 Thirty-three 29:3 thought 25:16 95:13 thousand 91:10 thousands 29:7,7,10 29:10 three 30:20 tied 26:25 time 9:12 12:15 15:12 15:13,20 20:11,12 53:12,16 63:5 64:9 64:17 80:3 81:12 95:14 100:23 107:11 116:16,20 119:14 120:7,18 130:23 131:2,6 times 15:6,8,25 16:21 17:25 20:10 28:16 28:18 29:8,10 32:2 34:1,2 titled 12:18 today 12:11 13:6 14:17 21:20 39:8 51:24 52:5 93:18 Today's 9:11 told 25:19 tonicity 41:2 tool 70:23 tooling 60:4 70:23 72:2 toolings 58:4 top 81:25 97:11 total 43:24 44:2 79:16 125:13,16 127:17 128:14 Tower 5:8 trained 50:21,24	training 51:9,11,12 52:4 transcript 61:18 62:15 62:22 134:3 transcription 134:11 treat 84:21 118:22 treating 84:11,13,14 treatment 21:7 84:17 85:1,10 94:10,15,18 94:23 106:16 109:13 119:8 trial 120:12 trials 97:1 120:2 tried 68:3 true 120:15 132:13 try 43:10 96:24 97:4 103:12 trying 25:13,22 47:16 63:13 68:10 92:4 102:23,25 103:2,4 112:5,10 120:6 125:23,25 turn 12:4,24 17:10 21:1 48:3 77:20 78:6 81:23 82:15 97:8 109:20 112:8 117:21 tutorial 26:14 two 22:7,22 38:14 47:19,23 52:15 69:5 69:9,16,19 92:19 99:16 114:11 type 93:16,24 94:3 95:23 96:3,4,22 types 20:18 96:8,15	90:24 104:6 unilaterally 63:17 United 1:1 12:21 72:17 87:12 117:11 126:11 136:23 137:8 138:4 138:10 UNIT-V 1:6 university 7:16 11:2 17:18,23 18:13 19:9 19:25 Urquhart 1:22 2:5 9:22 USA 1:6,8,12 4:5 6:4 use 18:7 21:10,13 22:8 36:4,12,13,13 36:17,19,22,25 37:5 37:9,11 38:13 45:9 45:11,15 51:8 55:10 56:24 58:5 59:2,15 61:6,10 64:17 68:3 68:10,12,18 69:16 74:17,18 79:9,17 85:6 94:25 101:2 102:23 103:12 115:6 115:13,15 116:7 128:21,25 129:6,7 129:10,13,15 useful 95:24 96:5 USP 117:24 118:5 121:4,7 126:22 127:7 usually 16:14 56:7 57:7,16 58:17 59:11 66:23 67:5 68:6 119:3 121:4 U.S 11:22 51:4 72:22 87:17	volume 56:11 57:9 <hr/> W <hr/> W 6:23 Wacker 3:6 7:6 wait 15:14,15 WALIA 6:11 want 26:14 28:3 29:19 31:5,13 32:4,23 34:24 35:2 44:5 45:25 63:15,20 64:3 76:11 77:24 78:10 79:25 88:15 92:13 103:9,22 115:6 123:21 127:8 wanted 115:22 116:3 wants 36:19 Washington 6:21 wasn't 42:13 water 20:4,4 57:17 59:2,3 77:7 124:9,22 way 15:16 28:16 51:3 63:25 71:20,21 75:9 99:18 100:18 104:6 104:16 123:8 132:17 weighed 121:23 122:21 weight 20:5 43:24 44:2 98:14 101:12 116:11 125:16 126:6 weight-wise 101:20 Welcome 53:19 81:15 116:23 Weldon 18:16 well-known 107:2 Wen 82:25 83:6 West 3:6 11:3 73:4 we'll 29:22 86:4 93:13 WHEREOF 132:19 WI 133:24 Wilson 5:6 10:15 witness 4:5 5:5 8:4 10:10,16 33:20 40:5 64:4 72:24 86:14 87:18 105:19 111:18 111:20,24 116:15 117:18 123:18 130:24 132:10,14,19 134:4 word 20:9 words 25:24 125:25 word-by-word 88:17 88:22 89:4 97:18 work 95:4 96:6,8,19 106:20 works 96:15,25 97:4,5 wouldn't 51:17	write 39:1 writing 88:16 wrong 65:21 77:10 102:16 104:2 121:18 wrote 88:7 <hr/> X <hr/> x 98:7 136:1,1 <hr/> Y <hr/> Yang 7:17 10:12 yeah 17:13 21:13 26:4 36:21 40:18 49:1 70:21 73:9 80:2 92:15 96:16 99:12 112:12 114:20 115:3 116:10,15 117:18,24 124:6,12 127:2 year 50:17 years 29:3,6,14,24 30:20 41:11 47:13 51:10,10 95:8,14,15 yesterday 14:19 York 1:20,20 2:8,8 4:8 4:8 6:9,9 7:22,22 9:4 9:4,14,14,17,18 132:3,4,8 <hr/> 1 <hr/> 1 9:8 11:6,8,19,20 17:10 35:6 45:22 46:1,25 48:4 49:1,2 49:4 54:2 72:18 81:6 81:18,19 82:10 87:11,20 88:23,24 94:5,8 97:8 101:8 105:18 106:5,6,17 111:17 117:6,13 118:2 126:12,17,25 136:3,24 137:3,8 138:5,11 1% 77:5 1-800-825-9055 133:17 1.800.825.3341 1:25 7:23 1:32 116:17,18 1:49 116:18,20 10 8:8 15:8,25 16:21 28:22 97:8 117:5,8 117:16 121:1,3,8 126:10,16 138:1,10 10:38 53:13,14 10:54 53:14,16 100% 98:5,7,12,15,17 98:21 99:20,24 100:3,5,20 102:9
---	---	--	--	---

US District Court - New Jersey
Celgene v. Hetero Labs

FINAL - June 7, 2019
Kinam Park, Ph.D.

Page 149

<p>104:19,25 10010 2:8 10011 7:22 10022 4:8 6:9 105 137:11 11 126:9,15 127:5 136:3,7 138:8 11th 111:11,18,20,24 112:11 137:20 11:07 63:6 11:08 64:8 11:11 64:8,10 11:44 80:3 111 7:6 137:17 117 138:1 12 82:19 87:13 137:9 12:32 81:12 126 138:8 13 97:11 13th 105:13 112:6 137:15 132 8:13 134 8:15 136 8:17 13797 105:10 137:13 13816 117:9 138:3 14 12:25 15 11:10 12:8 136:5 16 48:3,23 17 45:21 46:1 47:1 52:9 111:12 137:20 17th 6:19 18 94:8 106:17 185 66:1 19 54:3 126:22</p> <hr/> <p>2</p> <p>2 11:6,13 12:17 17:12 45:22 46:4 49:7,15 53:16 59:20 77:20 136:7 2% 77:5 2:11 131:2,6 2:17-cv-03387 1:14 20 15:8,25 16:21 54:3 2000 126:12,22 138:11 20006 6:21 2001 112:14,17 113:6 2002 93:17 94:1,3 2005 72:18 136:24 2008 117:13,24 138:6 2009 40:3 2010 106:5,9,11,13,19 107:2,15,18 2012 87:13 137:9 2018 11:10 12:8 81:8 82:1,4 136:5 137:4</p>	<p>2019 1:19 9:3,11 11:15 13:3 132:20 134:21 136:9 202.654.4500 6:22 202.654.4584 6:24 21 89:14,17 212.390.4218 4:17 212.446.4800 4:9 212.446.4945 4:11 212.849.7000 2:9 212.849.7516 2:14 212.849.7569 2:11 212.849.7597 2:17 212.909.3451 4:14 2121 127:9 22 77:20 22nd 2:7 222 40:15,17,18 78:10 24 126:22 253 114:14,16 255 114:5 26 106:6 262 11:23 94:14 109:12 27 73:17 112:9 2800 7:7 29 11:15 13:2 136:9</p> <hr/> <p>3</p> <p>3 21:2 39:17,19 40:15 49:7,17 78:6 81:12 136:12 30 29:6 89:18 133:11 300 115:7,12,14 116:4 128:13,17,18,19,21 128:22 129:2,6,7,10 129:15,22,22 309 133:22 31 73:16 312.269.1581 3:10 312.527.4000 7:9 312.782.3939 3:8 312.840.4307 7:11 32 97:25 325 109:20 114:15,18 327 107:16,18,20,21 114:11 328 114:21 33 29:14,24 41:11 3300 5:9 34 12:5 369 115:9,15 39 136:12</p> <hr/> <p>4</p> <p>4 49:3,4,20 65:11,17 66:1 89:12 116:20</p>	<p>136:17 40907 11:4 415.947.2000 5:11 415.947.2048 5:13 427 12:2 46:2,12,17,22 47:15,24 97:12,14 97:20 428 12:1 43 101:8 445 6:7 46 54:2 467 12:22 46:6,10,16 46:22 47:15,24</p> <hr/> <p>5</p> <p>5 45:22 46:4,5 48:6 49:5 72:16,22 82:15 94:5 136:22 5-milligram 44:6 50% 76:4,4 500 6:20 500-milligram 44:7 51 2:6 542 133:23 54853 133:24</p> <hr/> <p>6</p> <p>6 17:12 18:8 40:20 66:3 81:5,18,18,21 82:15 137:1 6,960,617 72:17,23 136:24 601 4:7 60601 3:7 7:8 627 121:8,10 123:11 65 136:17</p> <hr/> <p>7</p> <p>7 1:19 9:3,11 77:21 78:1 87:10,16 105:12,17 137:6,14 7th 132:20 72 136:22 74 7:21 75 73:3 77 3:6</p> <hr/> <p>8</p> <p>8 21:2 35:5 77:21 105:9,17,22 106:4,8 111:10,16 112:9 113:8,12,17 114:10 114:15,18,21 137:11 137:19 8,198,262 11:23 87:12 87:17 137:9 8,673,939 11:24</p>	<p>8,735,428 11:25 8,828,427 12:1 800 6:19 81 137:1 847.204.9402 3:11 866.211.5914 6:10 87 137:6</p> <hr/> <p>9</p> <p>9 82:20 111:9,15 112:4 113:7,13,22 114:5 114:14,16 117:4,5 117:11,15 137:17 138:4 9th 6:8 9,993,467 12:21 9:35 9:5,12 917.913.3781 4:18 929.429.5721 6:12 939 11:25 94105 5:10</p>
--	--	---	--